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Capsule Clinics

I. A. Wien, M.D.

- The preoperative diagnosis of Meckel's diverticulum is rarely made by means of a roentgenologic examination since visualization of the diverticulum may be misinterpreted as an intestinal loop. Marshall, S. F., and Baker, A. L.: Lahey Clin. Bull. **9** (April) 1955.

- Indications for the surgical treatment of a gastric ulcer (resection) are: high suspicion of malignancy as shown by x-ray or gastroscopic examinations, penetration of the ulcer, recurrent gastric ulcer, hemorrhage, acute perforation and gastric retention. Kiefer, E. D.: Lahey Clin. Bull. **9** (April) 1955.

- It is estimated that 800 persons die yearly in the United States of complications of hypertension due to pheochromocytoma. It is to be remembered that the condition is often mistaken for thyrotoxicosis. Newton, T. H., et al.: New England J. Med. **252** (June 9) 1955.

- The invention of the ophthalmoscope by Hermann Ludwig Ferdinand von Helmholtz in 1851 paved the way for a succession of new and more refined methods of treatment of the eye—especially of glaucoma. Habegger, H.: New England J. Med. **252** (June 9) 1955.

- A marked reduction in oxygen consumption occurs during hypothermia, and thus prolonged regional ischemia of parenchymatous vital organ systems may be permitted. This principle has been utilized to permit circulatory occlusion in cardiac surgery and interruption of the aorta for resection of aneurysms. Bernhard, W. F.: New England J. Med. **253** (August 4) 1955.

- Carcinoma of the genitals comprises only 2 per cent of the cancers in men, whereas it accounts for about 27 per cent of all cancers in women. Frohman, I. P.: Med. Ann. **24** (October) 1955.

- Supervoltage irradiation (1 and 2 million-volt) has the following advantages: higher depth dose, milder skin reaction, less shielding of tumors by bone, less risk of radionecrosis of bone and better defined x-ray beams. Phillips, R.: Med. Ann. **24** (October) 1955.

- Acute viral hepatitis has been found to be promptly terminated by means of the Knott technic of blood irradiation therapy. Olney, R. C.: Am. J. Surg. **90** (September) 1955.

- Primary reticulum-cell sarcoma of bone is a malignant tumor that originates in a single site, metastases usually by the lymphatics, produces pain and swelling, and has a relatively good prognosis, five year survival rate approaching 50 per cent. Wilson, T. W., and Pugh, D. G.: Radiol. **65** (September) 1955.

- Osteomyelitis of the spine may develop during the course of urinary tract infection, and this is best explained in the light of Batson's work demonstrating numerous anastomoses between the venous plexus of the pelvic organs and that of the spinal column. Leigh, T. F., et al.: Radiol. **65** (September) 1955.

- It is believed that calcium deposits in the hand are a result of local stress and strain with necrosis and deposition of calcium phosphate and calcium oxalate in the area. Carroll, R. E., *et al.:* J.A.M.A. **157** (January 29) 1955.

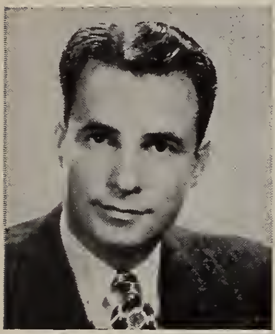
- Despite an intensive search for effective antifungal chemotherapeutic agents, there is, at the moment, no reliable therapy for histoplasmosis, coccidioidomycosis, moniliasis, torulosis, and pulmonary blastomycosis. Advances in Medicine and Surgery, Graduate School of Medicine, University of Pennsylvania, W. B. Saunders Co., Philadelphia, 1952.

- Seven conditions which account for 90 to 95 per cent of the pathology in abdominal emergencies are: acute appendicitis, perforated peptic ulcer, acute cholecystitis, acute salpingitis, acute hemorrhagic pancreatitis, renal colic, and acute coronary disease. Thorek, P.; Missouri Medicine 52 (June) 1955.

Missouri Medicine in Review

Leo H. Pollock, M.D.

FORTY YEARS AGO



After completing fifty years of continuous service on the medical staff of the St. Louis Mullanphy Hospital, Dr. Norman Bruce Carson, the dean of the surgical profession of St. Louis, was tendered a surprise dinner and presented with a gold loving cup at the hospital on November 24 by members of the staff.

For years it has been a lamentable fact that the number of attendants caring for the insane charges in the St. Louis City Sanitarium has been wholly inadequate. This hard-worked class of city employees who give their whole time and attention to the care of the insane, receives the same pittance that they did thirty or forty years ago, a meager stipend of $28.00 or $30.00 per month with board.

The organization meeting of the Perry County Medical Society was held at Perryville, November 23. Dr. George A. Blaylock was elected president; Dr. James W. Russell, vice president, and Dr. F. M. Vessells, secretary.

Dr. John Sturgis of Perrin was stricken with paralysis about December 8 and is in a serious condition. He is 73 years old and has been a member of Clinton County Medical Society and the State Association for many years.

Dr. M. A. Bliss of St. Louis and Dr. LeGrand Atwood of Ferguson have been elected original founders of the National Historical Society.

The American College of Surgeons begins the new year with an announcement that it has secured from its fellows an endowment fund of $500,000. This fund is to be held in perpetuity, the income only to be used to advance the purposes of the college. By this means lasting progress toward the purposes of the college is assured. The college, which is not a teaching institution but rather a society or a college in the original sense, now lists about 3,400 fellows in Canada and in the United States. Without precedent for swiftness of development it stands today a powerful factor both in the art and in the economics of surgery.

The Clinton County Medical Society met at Lathrop, December 22, 1915, and after being royally entertained and feasted on "possum and sweet taters" by our good friends, Dr. and Mrs. McConkey, we proceeded with our regular business.

The Webster County Medical Society held its annual meeting at Marshfield, December 14, with the president, Dr. Good, in the chair. It is with much pride that we forward to the Secretary of the State Association our check for $30.00, covering the 1916 dues of our entire membership. We want to be the first on the Roll of Honor this year.

TWENTY-FIVE YEARS AGO

Dr. Mazyck P. Ravenel, Columbia, professor of preventive medicine and bacteriology at the University of Missouri, was appointed consultant in public health and medical education to the Missouri State Board of Health, December 2, 1930. Dr. Ravenel is an internationally known authority on public health, hygiene and sanitation. The scientific accuracy of Dr. Ravenel's work and his ability as a pioneer bacteriologist were established through a controversy with the eminent German scientist, Dr. Koch, when Dr. Ravenel proved in opposition to Dr. Koch's contention, that human beings can contact the bovine type of tuberculosis under certain conditions.

When press dispatches brought the sad news to American readers on November 22 of last year that Dr. Ernst Fuchs, emeritus professor of ophthalmology in the University of Vienna, had died on the preceding day, thousands of physicians recalled the name and kindly face of the man who was regarded as one of the world's outstanding authorities on diseases of the eye. He was without a doubt the chief authority on the histopathology of the eye. Professor Fuchs was in his eightieth year at the time of his death.

The American College of Surgeons will hold a sectional meeting for the states of Missouri, Iowa and Kansas at St. Joseph, January 5 and 6.

The Hodgen Lecture for 1931 will be delivered before the St. Louis Medical Society by Dr. W. Edward Gallie, professor of surgery at the University of Toronto Faculty of Medicine, on January 13, 1931. His subject will be "Recent Advances in the Transplantation of the Fibrous Tissues."

The name of the Jewish Memorial Hospital under construction on Fiftieth Street between Holmes and Troost, Kansas City, has been changed to Menorah Hospital. The hospital is about half completed and will cost approximately $1,000,000. It will be ready for occupancy about June, 1931.

Preventive medicine in Colombia has received a severe setback according to authorities of that country by the death of sixteen children and the severe illness from diphtheria of thirty-three others, caused by the accidental administration of diphtheria toxin instead of antitoxin by an intern in a private hospital at Medellin, Colombia. The intern became insane after the tragedy.

(Continued on page 8)

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Missouri Academy of General Practice

William F. Wagenbach, M.D.

The Seventh Annual Assembly

The Seventh Annual Assembly of the Missouri Chapter of the American Academy of General Practice, held at Jefferson City on October 26 and 27, was an outstanding success and showed the results of previous experience and improvement.

Beginning on the previous evening, the Board of Directors met, with a number of visitors, and dispatched a large agenda of business. The following morning, Dr. George M. Wood, President, called the meeting to order for the transaction of business and the election of officers. The following were elected, as recommended by the nominating committee: President Elect, Dr. Charles Martin, St. Louis; vice president, Dr. Roy W. Pearse, Nevada; secretary-treasurer, Dr. J. H. Trollinger, Jackson; board of directors, Dr. W. C. Allen, Glasgow; Dr. A. E. Spelman, Smithville, and Dr. John T. Crowe, Cape Girardeau.

The scientific program followed immediately after the business meeting, consisting of a presentation by Dr. Ashton Graybiel, Pensacola, Florida, on "Practical Hints on Clinical Electrocardiography"; Dr. William Hudson, Detroit, on "Treatment of Pulmonary Tuberculosis With Reference to Home Treatment"; Dr. Thomas Thale, St. Louis, "The Use of Serpasil and Thorazine in Office Practice for the Mentally Disturbed," and a panel on "Cancer of the Cervix and Uterus" by Drs. A. E. Spelman, Smithville; Victor B. Buhler, Kansas City, and Clarence Davis, Columbia.

On Wednesday evening Rabbi Isserman, St. Louis, spoke on "The Dignity of Man" at the banquet. His wonderful oratory held the audience enthralled and it was generally agreed that he was one of the best speakers the Academy has had.

On Thursday, Dr. Hudson spoke on "Diagnosis and Treatment of Patients With Symptoms of Chest Diseases"; Dr. Robert Bollinger, Kansas City, Kansas, "Management of Problem Diabetics With Review of Insulin and Emphasis on Newer Insulins"; Dr. A. K. Busch, St. Louis, "The Use of Serpasil and Thorazine in the Institutional Care of the Mentally Ill," and Dr. Ashton Graybiel, "Certain Limitations in Using Subjective and Symptomatology in Regulating the Activities of the Cardiac Patient."

The convention adjourned at 4:30 p. m. It was an outstanding meeting with a total registration for the doctors of 109.

At the business meeting there was some discussion of a change of cities for the next convention. Because of the time element, it was deemed advisable to hold the next convention in Jefferson City.

Missouri Medicine in Review

(Continued from page 6)

During the year of 1930 the Five-County Medical Society, consisting of the counties of Butler, Dunklin, New Madrid, Pemiscot and Stoddard, carried out a plan for postgraduate work at home. The group held meetings annually. The smallest number of doctors present at any meeting was forty-five, the largest sixty-seven, weather conditions being the cause of the smaller number.

TEN YEARS AGO

The end of the war made possible a session of the House of Delegates of the American Medical Association in Chicago during the period from December 3 through December 5. It expressed its opposition to federal compulsory sickness insurance as proposed by the Wagner-Murray-Dingell bill and also to the ordinary proposals made by Senator Pepper in his bill for maternal and infant care.

Dr. C. T. Herbert, Cape Girardeau, was elected president of the Southeast Missouri Medical Association at its 69th annual meeting held at Cape Girardeau on November 5.

Dr. Ben Brasher, Lexington, spoke before a parent-teacher association in Lexington on November 14 and told of the condition of child health among Arab children which he had witnessed while in service.

In honor of the memory of Dr. John L. Benage, the Iberia Junior College has created a loan fund for the assistance of young men and women to become physicians and nurses.

Dr. A. E. Monroe, Sedalia, has been appointed county physician of Pettis County.

Deaths: McComb, James A., M.D., Lebanon, a graduate of Beaumont Hospital Medical College, St. Louis, 1887; honor member and former president of Laclede County Medical Society; aged 82; died November 15. Finney, William B., M.D., Kennett, a graduate of St. Louis College of Physicians and Surgeons, 1890; honor member of Dunklin County Medical Society; aged 87; died October 27.

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Woman's Auxiliary

Mrs. Frank B. Leitz, *President*

Early in November it was our privilege to attend the Twelfth Annual Conference of State Presidents, Presidents-Elect, National Officers, and National Committee Chairmen, Woman's Auxiliary to the American Medical Association, which was held at the Hotel Drake, Chicago, Illinois.

The theme of the conference was that chosen by our National President, Mrs. Mason G. Lawson, for her administration, "Active Leadership in Community Health."

The first morning of the conference Ernest B. Howard, M.D., Assistant Secretary, American Medical Association, spoke on "Social Security Disability Benefits." Dr. Howard told of the beginnings of Social Security during the depression year of 1934, and of how the plan was amended in 1939. What started out as welfare with some elements of insurance has become a system of redistribution of wealth. It was suggested that we become thoroughly familiar with HR 7225.

Each National Committee Chairman acted as moderator of a panel covering her particular chairmanship. Panel participants were presidents of state auxiliaries. In addition to participants each panel included guest speakers and resource authorities.

We were assigned to the *Today's Health* panel, with Mrs. C. Rodney Stoltz, Watertown, South Dakota, as moderator. *Today's Health* has been referred to as "Our Baby" and that was the general theme of the four panel participants. Acting as Resource Authorities were W. W. Bolton, M.D., Associate Director, Bureau of Health Education, A.M.A.; Mr. William Hetherington, Managing Publisher, *Today's Health,* and Mr. Robert Enlow, Director of Circulation, *Today's Health.* It was developed that not too long ago *Today's Health* was considered a sick baby in that it did not pay its own way. With the number of subscriptions increasing, its health status is much improved. Auxiliary members were, of course, urged to continue to work toward increasing the number of subscriptions. The slogan—"Buy a copy, Sell a copy, Give a copy"—used in another state was recommended for use by all states and all auxiliary members.

The legislation panel with Mrs. Charles L. Goodhand, Parkersburg, West Virginia, as moderator was extremely interesting. Topics discussed by panel participants were: The Bricker Amendment, Military Medicine, Federal Aid to Medical Education, Jenkins-Keogh Legislation, Mortgage Loan Insurance and Health Reinsurance. Resource Authorities for the legislation panel were Mr. C. Joseph Stetler, Director, Law Department, A.M.A., and Mr. R. G. Van Buskirk, Staff Associate, Law Department, A.M.A.

During one of the luncheon meetings Elmer Hess, M.D., President, A.M.A., was guest speaker. Dr. Hess, in his own most impressive way, urged that all eligible members of all medical families be registered to vote, and then make best possible use of their right of franchise.

The entire conference was inspirational. There was good, warm fellowship.

As we registered we were given large, easy-to-read name plates. This led another guest at the Hotel Drake, after a few days of sage observation, to comment, "What kind of a meeting is this? It seems to be all Chiefs and no Indians."

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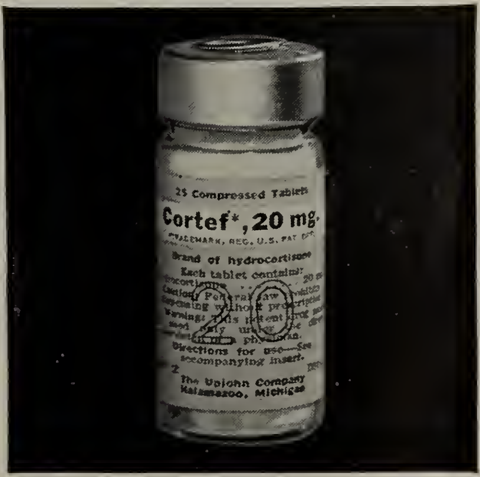
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Missouri State Board of Medical Examiners

Duff S. Allen, M.D., *President*

The Scope of Our Work

In the September 1955 issue of Missouri Medicine we outlined briefly the duties of the State Board of Medical Examiners of Missouri. There still remains some uncertainty, however, in the minds of several of the members of the Missouri State Medical Association with regard to the responsibilities of the Board, the methods by which its activities are financed, and its relationship to the physicians of the state and the state government.

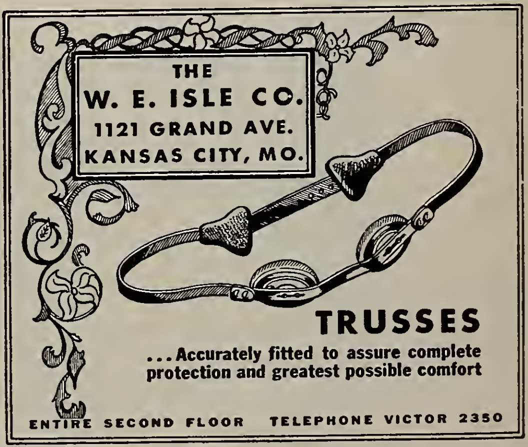
In February 1945 a new Constitution was adopted in this state and with the new Constitution the State Board of Medical Examiners was placed under the Department of Education. This was a logical move since this Board is primarily concerned with the educational qualifications of physicians. We must be conversant with medical education not only in the United States but in foreign countries as well. We are the ones who must determine whether a candidate has had the proper medical education to qualify him for permission to take our State Board Examinations. We can and do refuse to allow graduates of inferior medical schools this privilege.

In addition to the granting of licenses by examination and by reciprocity your Board has two other duties to perform: (1) To investigate, to cite and to cause suit to be brought against those who are practicing medicine without a license, and (2) to revoke the license of a physician who becomes morally unfit to practice medicine. There are 6,653 licensed physicians in the State of Missouri, and they are a quite honorable group. During the last year we have revoked the licenses of two physicians, one who was convicted of becoming an abortionist and one who became a drug addict. At this rate we will get around to all of us in a little over 3,000 years.

How are the monies raised to finance the activities of your Board? They come not from taxation but mainly from us, the physicians of the state. We take up and spend our own collection. Our biannual registration fees supply most of this money, but some is derived from examination fees, from endorsements to other states and from reciprocity fees. This money is set aside by the State Treasurer for our special use. The recent increase in the biannual registration fee from $3.00 to $5.00 has given us money, for the first time, sufficient to pay for the needed expert investigators. It may be of interest to you to know that the salary of a Board member is $10.00 per day, minus $0.20 for Social Security, and, of course, we are paid only when we are in formal session. We have had eight such formal sessions in 1955, each of which has lasted from one to three days.

Perhaps the scope of the work of the Board can be more easily appreciated by a brief résumé of our record for the year 1955. During that year we gave complete State Board Examinations four times. A total of 279 doctors were given examinations, 257 of these passed and twenty-two failed to pass. Most of these twenty-two who failed to pass were graduates of foreign medical schools. One hundred ten licenses were issued by reciprocity from other states or by endorsement from the National Board of Medical Examiners.

We have been proud of our record in bringing to task those who have been practicing medicine without a license. During the last year we have instituted twenty-four such investigations. We have obtained a permanent injunction, for the first time, against a naturopath who was practicing medicine. A permanent injunction is better than a conviction for the practice of medicine without a license. In this state the punishment for contempt of court, a violation of a permanent injunction, is often more severe than for the illegal practice of medicine. Thus it seems that our laws with respect to the practice of medicine could stand a little strengthening here and there.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Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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Vol. 53 January, 1956 Number 1

Cardiac Arrhythmias

In Physical or Emotional Stress

MICHAEL BERNREITER, M.D., *Kansas City*

Cardiac arrhythmias brought about by physical or emotional stress in patients without demonstrable heart disease are, in my experience, not a rare occurrence. The rising incidence of these rhythmic disorders, including premature beats, paroxysmal tachycardia and auricular fibrillation, may well make their first appearance in a normal heart after strenuous exertion or severe mental strain. Many patients with rhythmic disturbances of the heart will, on careful questioning, disclose a history of recent psychic conflict or emotional strain.

The interpretation of this condition as primarily a psychosomatic disease has perhaps little scientific support. However, the possible importance of psychic factors in the etiology of these conditions is worthy of careful investigation. Emotional strain is always difficult to evaluate as an etiologic factor in disease; but despite these difficulties, one cannot dismiss the possible relation of emotion to the precipitation of cardiac arrhythmias.

There is rather strong circumstantial evidence that unusual and violent physical exertion also may be an important causative factor in the initiation of even fatal disturbances in the rhythm of the heart. These disturbances may vary from occasional to frequent prematurities originating in the auricles or ventricles to the more serious paroxysms of tachycardia, flutters and fibrillations. While these attacks are more common in patients with organic heart disease, they are not uncommon in individuals free from any demonstrable cardiac pathology.

In the cases reported here there has been a close relationship between the onset of the cardiac arrhythmia and the period of physical or mental stress.

CASE REPORTS

Case 1. A 45 year old white male was admitted to the hospital because of palpitation and faintiness of about three hours duration. His previous health had been good and he had worked for six years in his present employment. On the afternoon of admission he had a violent argument with his supervisor which was soon followed by pounding of the heart and giddiness never experienced before. An electrocardiogram after admittance showed auricular fibrillation. Blood pressure was 100/80. After rest, sedation and quinidine a regular rhythm was established. Further investigation during his hospital stay revealed no cardiac pathologic condition and no other unusual findings. Paroxysms of auricular fibrillation were easily produced if the patient was irritated by the house staff or by the nurses.

Case 2. A 53 year old man had always been in good health. At 10:00 a.m. one day he lifted a 150 pound load. He experienced a feeling of giddiness, palpitation and dyspnea. He was taken to the hospital in an ambulance and on arrival he was pale and in a shock-like state. Electrocardiogram showed ventricular tachycardia. Rest, sedation and pronestyl terminated the attack. A repeat electrocardiogram and other laboratory findings were within normal limits. Weight lifting while in the hospital on several occasions brought on short paroxysms of tachycardia.

Case 3. A 40 year old man had always been nervous, tense and easily excited. At 4:00 p.m. on the day of admission he had an argument with his foreman and was subsequently dismissed. He immediately became nauseated and experienced violent pounding in his chest. On arrival in the hospital an electrocardiogram was taken which showed a paroxysmal auricular tachycardia. Injections of prostigmin, together with carotid sinus pressure, established a regular sinus rhythm within approximately one hour. Further studies revealed no pathologic condition and an electrocardiogram taken several days after admission was within normal limits.

Case 4. A married woman about 34 years of age collapsed suddenly on the street while witnessing a serious car accident. She arrived in the hospital by ambulance in a state of shock. The pulse was slow and difficult to obtain. An electrocardiogram showed a complete heart block. The diagnosis was Adams-Stokes syndrome. She was given oxygen, epinephrine and the electrical pacemaker was used. She made a prompt recovery and a follow-up electrocardiogram was taken while the patient gave a detailed account of the accident. There was no difficulty in reproducing a complete heart block in this patient during these periods, the electrocardiogram showing progressive changes from AV block to ventricular tachycardia, electrical alternans and cardiac standstill.

SUMMARY AND CONCLUSIONS

The four cases presented are typical for the condition discussed. Acute changes in cardiac rhythm were induced in each individual after unusual body effort or emotional strain. During the alarm reaction of the general adaptation syndrome increased capillary permeability, hemo-concentration, hypertension and hypotension were evidenced. Exercise and emotional stress may also cause an increase in blood viscosity and hematocrit, and a decrease in sedimentation rate, coagulation and prothrombin time. The central nervous system and the endocrines also appear involved by the action of neurohormones (adreno-sympathogenic) and hormone (adrenal-corticoids and thyroid). In summary it may be stated that physical exertion and emotional stress may lead to almost all types of cardiac arrhythmias and death in the abnormal as well as the normal heart. An attempt is made to describe some of these phenomena that occur during the alarm reaction and their possible relationship to the production of ectopic rhythms.

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. . . the humblest of my patients today

I noted a cartoon dealing with the cost of medicine. My thoughts wandered to the father and mother looking at the small figure so still in the big bed. It all seemed to have happened very quickly. The small boy coming in from the drenching rain. Next day the sore throat. Then the horrible cough, high fever, nurses, doctors, never-ending vigil, hope and despair, and finally, death. Death entered the White House as devastatingly as though it had been a hovel. Eight dollars worth of antibiotics would have had Willie Lincoln well within a week or less.

Not so remote in time, Calvin Coolidge, Jr. blistered his heel on the tennis court. Infection and septicemia followed. Once again death eluded every barrier to invade the White House and carry away the President's son. Five to $10 worth of sulfonamide or broad spectrum antibiotic tablets would have saved a life—a precious child.

William McKinley was struck down by an assassin's bullet. It took him nine days to die. The wound in itself would be considered trifling today. But the President died of the peritonitis that followed.

Warren Harding died of pneumonia, another disease which is rapidly taking its place among the diseases of the past.

What does all this mean to us today? It means that the humblest of my patients today is infinitely better off than were the most powerful in the world just a few years ago. For half a day's pay the laborer of today can buy these precious medicaments which the Lincolns, the Coolidges, the McKinleys, the Hardings, and untold others could not obtain at any price.

Tremendous sums are spent in research. Superhuman effort is spent by countless dedicated men and women so that for a few insignificant dollars all boys and girls filled with promise for life and loved by their parents, the wives and husbands, the fathers and the mothers, yes, the grandfathers and the grandmothers in my reception room, may live with the least physical and emotional agony. I'm humbly thankful.

Herman B. Kipnis, M.D.,
Chicago *Sun-Times*,
May 17, 1955.

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Ringworm of the Scalp

A Clinical Survey

NORMAN TOBIAS, M.D., *St. Louis*

SINCE SCALP ringworm is a fairly common endemic infection in the St. Louis area, it should be accurately diagnosed and treated properly to avoid the possibility of epidemic spread. Limited to children under the age of 14, it is often treated with ointments for long periods without proper supervision. Under these conditions spread of the disease is inevitable among siblings in the family, school or playmates. Individual susceptibility and close contact with the infected hairs are necessary for infection to occur. Even though the clinical appearance of the lesion is suggestive of ringworm, the diagnosis must be verified by the Wood light and microscopic wet preparations; and the type of fungus classified by making a culture of the infected hairs. The culture is important from the therapeutic and prognostic standpoints as M. audouini infections require x-ray epilation for their eradiation while M. lanosum (canis) infections usually clear up within three weeks with topical antifungal ointments.

Not every patchy dermatitis in a child's scalp is ringworm but the disease may not be obvious to the naked eye; secondary infection may mask the clinical features, and no two cases appear exactly alike. It is therefore important to consider every case of patchy alopecia, scaling or crusting in a child's scalp as ringworm until it is proven otherwise.

Although the disease does not affect the general health it is a general nuisance. The dermatologist is concerned about the danger of infection to other patients, the mother is worried about the long ordeal of therapy and the child's psyche may be affected by the fact that he has to wear a protective cap and be labeled "exhibit A" like the lepers of the middle ages. From every angle the disease is a nuisance in the office, the clinic, the home and the classroom.

CLINICAL TYPES

Tinea capitis is not a skin disease but an infection of the hairs with specific fungi which have an attraction to hair keratin for some unknown reason. Three types are recognized in this zone: (1) Microsporon lanosum (canis) which is parasitic for cats and dogs and which readily infects children; (2) M. audouini which is strictly a human parasite and is only spread from child to child by contacts directly or indirectly; (3) and the Triochophyton tonsurans, which is a Mexican import and has been reported in Texas and California. Sporadic cases are appearing in other states. The latter type is of great interest because it has unusual features: it may affect adolescents and adults and it does not fluoresce under the Wood light. Even the clinical appearance may be atypical with seborrheal, psoriasiform and follicular pustular lesions predominating, according to Pipkin.[1]

Another uncommon manifestation of scalp ringworm is a tender boggy scalp lesion called kerion (from the Greek word for honey-comb) which is associated with M. lanosum infections and may be mistaken for an abscess. Mild fever, irritability and local adenopathy are present and local alopecia may result after the lesion involutes. Parents should be forewarned of this possibility so that x-ray epilation, if administered, will not be unjustly incriminated. Kerion is an allergic response to the invasion of the hair follicles with destruction of the fungi *in situ* (fig. 1a).

Clinically, M. lanosum infections are more obvious since the patches are more inflammatory and studded with pustules and broken-off hairs. Typical "rings" (fig. 1b) may be present on the nape of the neck, face or upper extremities as direct inoculations from infected hairs coming in contact with the non-hairy skin. M. audouini infections are more difficult to detect since the patches consist of noninflammatory areas of partial alopecia in which the surviving hairs are lusterless. Under the Wood light the true extent of the infection may be surprising (fig. 2).

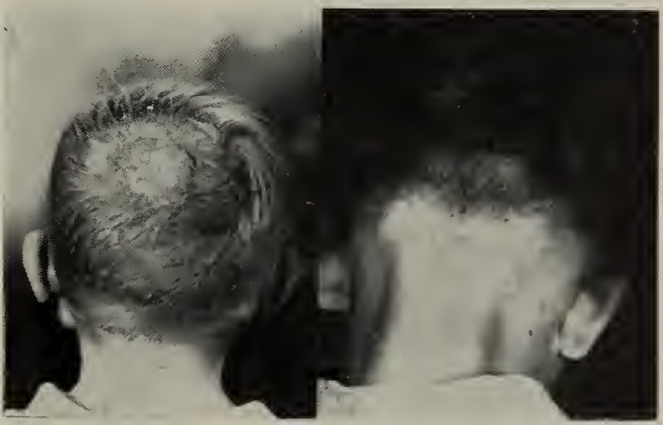

Fig. 1a. Kerion is a suppurative type of reaction in some cases of M. lanosum infection. The lesion is painful and regional adenopathy is always associated with it. b. M. lanosum scalp ringworm in a common site in boys (clipper area), is probably acquired in a barber shop.

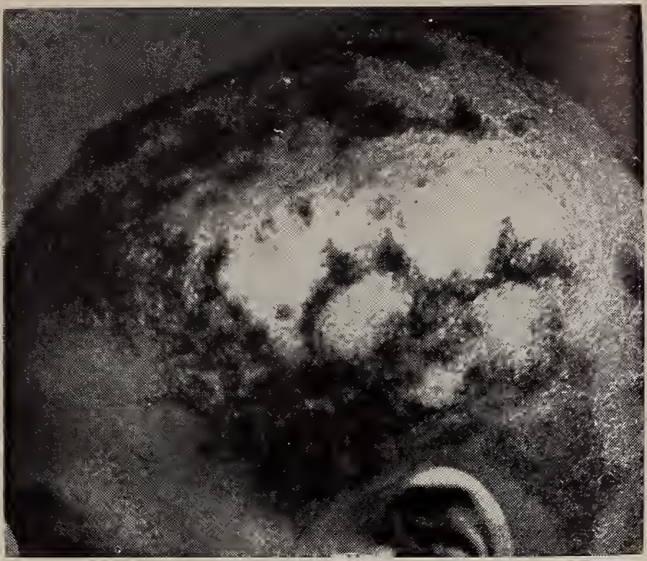

Fig. 2. M. audouini infection with extensive involvement.

DIAGNOSIS

Four measures are necessary in diagnosis: (1) a high index of suspicion, (2) the Wood light examination (a Stroblite black tube lamp is preferable to the purple X bulb); (3) microscopic examination of the fluorescent hairs (using 30 per cent potassium hydroxide solution); (4) implantation of several of the infected hairs on Sabouraud media to determine the species of fungus from the character of the culture growth (fig. 3). From seven to ten days are required for the colony to grow large enough for study. The hairs should be sent to a mycologist or pathologist experienced in this work. Before hairs are removed for study the scalp should be thoroughly shampooed with tincture of green soap to remove residual ointments or medication. The hair should be permitted to grow long enough in boys to extract suitable specimens for study.

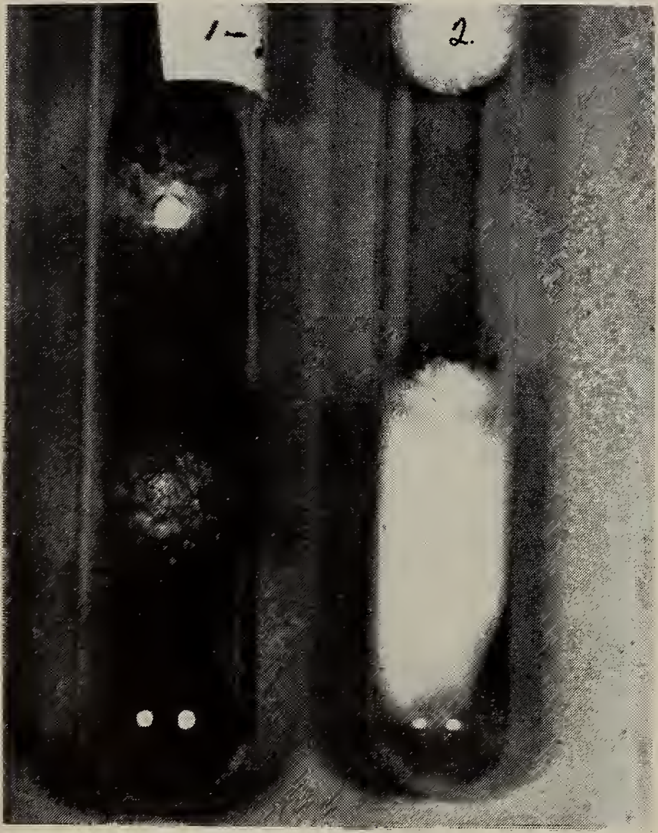

Fig. 3. Scalp ringworm cultures, 1. M. audouini showing pigment, 2. M. lanosum.

INCIDENCE

Of eighty cases in this series, sixty-two were in boys and eighteen in girls. M. audouini infections were found in sixty-one, M. lanosum in

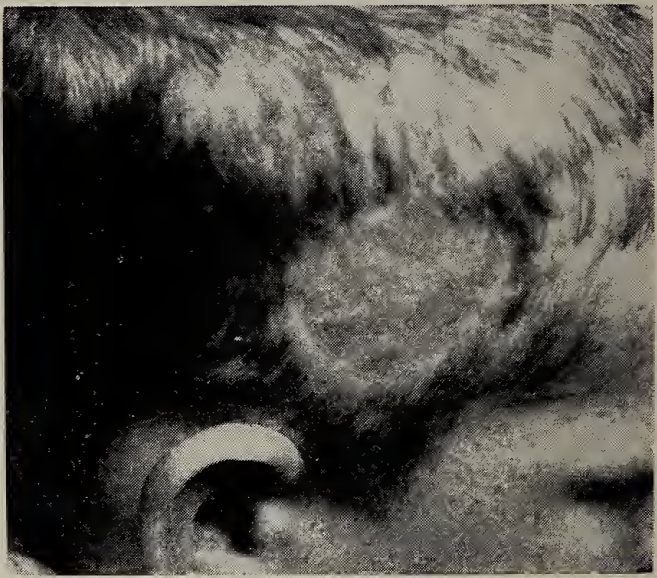

Fig. 4. M. lanosum infection acquired from a kitten.

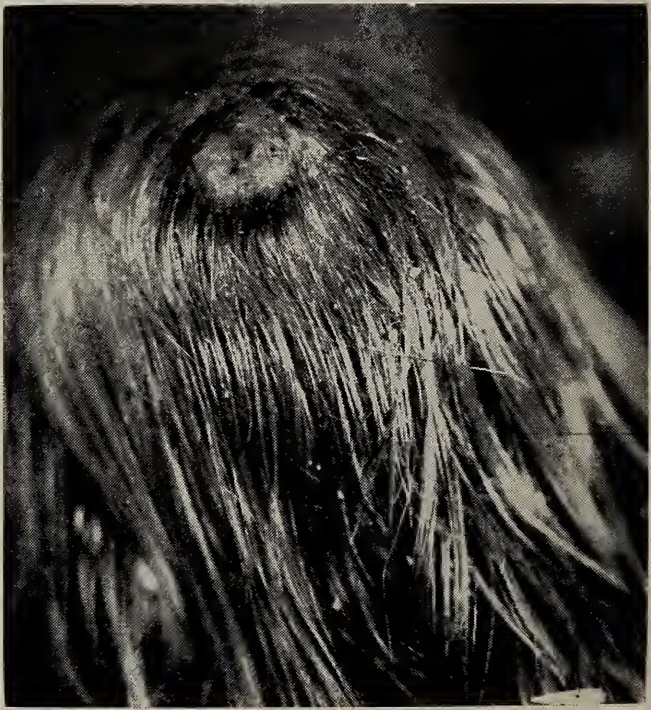

Fig. 5. M. lanosum infection in a girl.

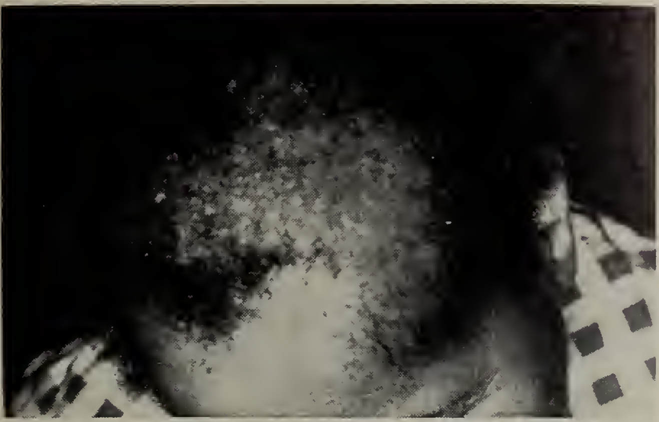

Fig. 6. M. audouini infection, a neglected case. Duration of seven months.

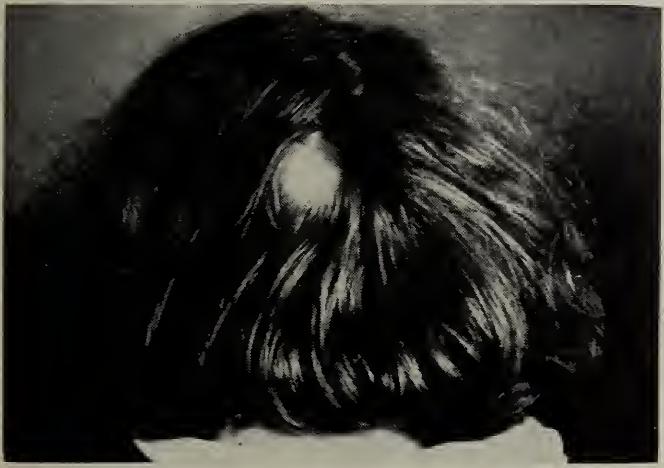

Fig. 7. Alopecia areata which may be mistaken for ringworm. Note absence of hair, inflammation and scaling.

sixteen, T. gypseum (fulvum) in two and T. violaceum in one. All of these cases occurred in middle income families, none in the high income bracket. Many of these cases were first diagnosed by Public Health school nurses. The neglected or far advanced cases were in the minority and were from neighboring Illinois or Missouri counties or in recent arrivals from rural areas.

Dr. J. Earl Smith, Health Commissioner of the City of St. Louis, in a personal communication, stated that in 1949, 413 cases of scalp ringworm were reported to his department; in 1952, 299 cases were reported. These cases do not represent the true incidence of the disease, at least in the preschool group, although it is a reportable disease. Early diagnosis and treatment will prevent epidemics and reduce the strain on the facilities of those who must treat these cases.

PRETREATMENT INSTRUCTIONS

While awaiting the results of cultures, parents are advised to carry out the following: (1) boys get haircuts at home (burn all clippings); (2) kittens or puppies on the premises should be taken to a veterinarian for Wood light examination; (3) any broken-off hairs discovered on the pillow or sheets should be removed at once and burned; (4) a "beany" acceptable to the child should be worn at all times; (5) a fungicidal ointment, preferably Salundek (Wallace and Tiernan), should be applied daily to the entire scalp until a final diagnosis is made.

SOURCE OF INFECTION

Of the eighty cases in this series of private cases, twenty-eight were direct contacts with infected children; fifteen were probably acquired from infected kittens; the cinema appeared to be the source of infection in seven, and eight cases had doubtful contacts with infected playmates. It was not possible to examine the barber shop as a source of infection as the health departments in the City and County have adequate facilities for this work. One source of infection that may be overlooked is the symptomless carrier, but routine examination of all children in public and parochial schools should overcome this problem.

The physiologic and biologic conditions necessary for infection are not known. Local immunity, personal hygiene and the virulence of the invading fungi are important factors. Klingman[2] has demonstrated experimentally that some form of minor trauma is a prerequisite for infection to take place. The longer hair in girls offers a measure of protection; they are less apt to exchange headgear or to engage in strenuous sports.

PROGNOSIS

Regardless of what type of therapy is used, scalp ringworm will usually undergo spontaneous cure at or near the age of puberty. For this reason the examiner may decide to withhold x-ray epilation in M. audouini infections in older children. The disease may also undergo complete involution if secondary infection is present. Although Livingood and Pillsbury[3] reported 25 per cent spontaneous cures in a series of M. audouini infections and in 75 per cent of M. lanosum cases, it is not practical to await this phenomenon from the standpoint of public health and the personal desires of the parents.

DIFFERENTIAL DIAGNOSIS

During epidemics especially, many cases suspected of a positive Wood light reaction prove to be examples of pseudo fluorescence. In a series of thirty-four cases suspected of having scalp ringworm, three were only scars, six impetigo, four pustular folliculitis, twenty were patches of seborrhea and one was trichotillomania. In alopecia areata, the bald areas are smooth, devoid of hair and noninflammatory. In seborrhea, the hairs are normal and the scales are limited to the skin.

TREATMENT

The management of a case depends on the type of fungus found in the culture. M. lanosum infections will clear up within three weeks as a result of local therapy with tincture of iodine, 5 per cent ammoniated mercury or a 5 per cent sulfur ointment. Asterol ointment should not be used in children as it has neurotoxic effects. However, in extensive or stubborn cases or when parental cooperation is not obtained, x-ray epilation is advisable. In all M. audouini infections, x-ray epilation is mandatory since local therapy is not satisfactory and may require from three to five months for results. It is presumed that x-ray epilation will be performed by an experienced and skilled operator and the Adamson-Kienböch method employed.

Follow-up of Cases Treated With X-Ray.—Letters were addressed to the mothers of fifty children who had received x-ray epilation, with thirty-one replies. All except one reported complete cures. The exception was a case from a rural area, which required bacon grease to effect a final cure! In three cases the regrowth of hair was stated to have acquired a slight reddish tint; in four cases the hair was somewhat curly; and in one case there was slight thinning of the hair over the right parietal area. One mother reported a premature loss of the baby teeth in her child three months following x-ray epilation. A second inquiry six months later resulted in reports that the hair in the latter group was normal in color and texture.

Ointment Therapy.—At the present time there is no effective local therapy that is dependable in M. audouini infections. Sullivan and Bereston[4] examined thirteen antifungal preparations and concluded that only those containing di-chloro-salicylanilide were effective in the majority of the cases. In the absence of controls and the possibility of spontaneous cures, scalp ringworm cures must be critically evaluated. Ointment therapy requires at least five months for a cure, the therapy is tedious for both child and parent and results are not dependable. However, in small communities where x-ray epilation is not available, ointment therapy is worth a trial.

Manual Epilation.—When done under the Wood light, the extraction of infected hairs with the forceps, if skillfully performed, may be successful in controlling small patches of ringworm. In some x-ray epilated scalps, a few infected hairs may be left in the follicles and should be removed with the forceps. In children who squirm during the procedure, local anesthesia with an ethyl chloride spray may permit the work to be completed successfully.

Criteria for Cure.—The scalp infection is not considered cured until (1) all fluorescent hairs have disappeared by examination of the entire scalp under the Wood light; (2) there is regrowth of normal hair and, (3) examination of the scalp at two week intervals for ninety days reveals no fluorescent hairs.

Psychologic Factors.—In every case of ringworm of the scalp, there is a worried mother or parent and a harrassed child. The mother is concerned with the origin of the infection, the possibility of infection of the other children, the duration of treatment, the curtailment of schooling and the possibility of permanent alopecia following x-ray epilation. Each of these matters should be discussed at the time of the first visit. The child whose "beany" or muslin cap marks him as a bearer of an infectious disease should be given assurance of cure within a reasonable time, regrowth of hair and acceptance by his group. The protective cap should be dyed the color of the hair to avoid undue notice. In most communities the child is permitted to attend school as long as he is under medical supervision, conforms to local health regulations and cooperation of the parents is forthcoming.[5]

SUMMARY

Scalp ringworm should be regarded as a public health problem. The first physician to see the case should confirm his diagnosis by Wood light, microscopic and culture studies.

In the absence of an accurate diagnosis, the use of ointments may prolong the disease, spread the infection to contacts and cause possible fungus resistance.

X-ray epilation by an expert is the only acceptable and reliable cure for M. audouini infections.

Until another "miracle drug" is discovered which will cure every case of M. audouini infection within a reasonable length of time, x-ray epilation remains the only satisfactory method of curing this nuisance, tinea capitis.[6]

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Postgraduate Review

Colonic Diverticulosis

Management of Complications

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COLONIC DIVERTICULOSIS is a condition which occurs commonly in people past middle age. The etiology is unknown.

While diverticulosis and simple diverticulitis are usually amenable to conservative measures, the complications of diverticulitis are quite serious and require surgical management in most instances. The subject of recurrent mild diverticulitis commonly seen in office practice is well covered by Horner.[8] The details of medical management are adequately outlined in "Current Therapy for 1955."[4]

It is not the purpose of this paper to discuss theories of etiology, incidence of the condition or give historical information and descriptions of pathology. These subjects are thoroughly covered in several excellent publications (Boyd,[2] Maingot,[13] and Johnson[10]).

In recent years, definitive bowel resection and anastomosis, once reserved for the management of neoplasms, has been used with excellent results in the treatment of complicated diverticulitis. Testimony of this is given in many surgical papers (McMillan and Janieson,[16] Ransom,[21] and Welch[25]).

The common complications of diverticulitis are intestinal obstruction, localized or generalized peritonitis due to perforation, fistula formation, hemorrhage and recurrent, disabling bouts of diverticulitis with scarred, strictured sigmoid colon. This disease simulates many others. It may present clinically as an abdominal mass, gastrointestinal hemorrhage, internal or external fistulae, perforated appendix, cholecystitis, urinary infection or carcinomatosis.

The following cases illustrate many facets of this disease.

REPORT OF CASES

Case 1. A. S. A white male, aged 66 years, was admitted to St. Luke's Hospital on July 27, 1954. He had noted the onset of pain in the lower abdomen about three days before admission and this had persisted. He had had no bowel movement during that period. On admission, his abdomen was distended markedly and was tender generally. The white blood count was 11,000, the hemoglobin 16 grams and the temperature was 37.4 C. An x-ray examination of the abdomen showed marked distention of the large intestine from the cecum to the sigmoid. No mass was palpable. He previously had been admitted on May 19, 1948, because of pain in the lower abdomen and rectum. At that time a mass could be palpated above the prostate on rectal examination. Barium enema revealed diverticula involving the descending and sigmoid colon, with marked narrowing of the mid-sigmoid. The patient was treated with sulfasuxidine and a bland diet. He improved on this conservative regimen and had little trouble until readmitted in July 1954. After the patient was adequately hydrated, a transverse colostomy was done. At exploration, a smooth, firm mass was palpated in the sigmoid colon. The colostomy functioned well and the patient was relieved of symptoms. A barium enema on August 5 revealed diverticulosis of the left colon with a persistent area of constriction in the mid-sigmoid. This was thought to be more suggestive of diverticulitis than of carcinoma. The patient was reexplored on August 12, 1954, with resection in mind. On opening the abdomen, the entire left colon was found to be thickened, edematous and adherent to surrounding structures, making resection impossible. The abdomen was closed. The patient was sent home with the colostomy functioning and did well. He was readmitted on October 28, 1954, and the sigmoid area containing the inflammatory mass and stricture was resected. An end-to-end anastomosis was accomplished with little difficulty. On January 17, 1955, the transverse colostomy was closed by an end-to-end anastomosis. The patient has done well to the present date.

This is a not infrequent case of an inflammatory mass in the sigmoid causing intestinal obstruction, and points out several things. One is the confusion with carcinoma and the help that the radiologist may be able to give in differentiating betwen the two conditions (Rowe and Kollmar[22]). The second point is that the time element between the colostomy and resection of the involved area is important. Adequate time must be allowed for all acute inflammatory reaction to subside so that the resection might be easily accomplished. The third point is that this represents a case of recurrent inflammatory reaction in the left lower quadrant, which over a period of years made surgery mandatory. In some of these cases, an elective one stage resection might be indicated to forestall such a serious complication as this man suffered. Many surgeons are urging a more aggressive attack on recurrent diverticulitis before serious complications arise (Moore and Kirksay[17]). The mortality from the complications of diverticulitis is stressed by Lewis.[11]

Case 2. H. G. A white male, aged 70 years, was admitted to St. Luke's Hospital on February 1, 1955, with a picture of intestinal obstruction due to a palpable tumor mass in the left iliac fossa. The symptoms began one week previously with an upper respiratory infection, followed shortly by abdominal pain and vomiting. He became obstipated and his abdomen began to swell.

From the Surgical Service of St. Luke's Hospital, St. Louis.

On admission, his temperature was 37.5 C., pulse 80, blood pressure 115/65 and a relatively normal blood picture. The abdomen was distended and there was a mass palpable in the left iliac fossa. X-ray examination of the abdomen showed marked distention of the small and large intestine to the descending colon (fig. 1). A Cantor tube was introduced because bowel sounds were still present. The tube functioned well and by the next day the abdomen was much less distended. In the morning he passed flatus and in the afternoon he had two stools. Proctoscopy was carried out to 25 cm. and no lesion could be seen. On February 4 a barium enema was done, which showed diverticulosis and a narrowed segment of sigmoid with intact mucosal pattern (fig. 2). The radiologic impression was that this mass and stricture were inflammatory, secondary to diverticulitis and that there was no evidence to suggest carcinoma.

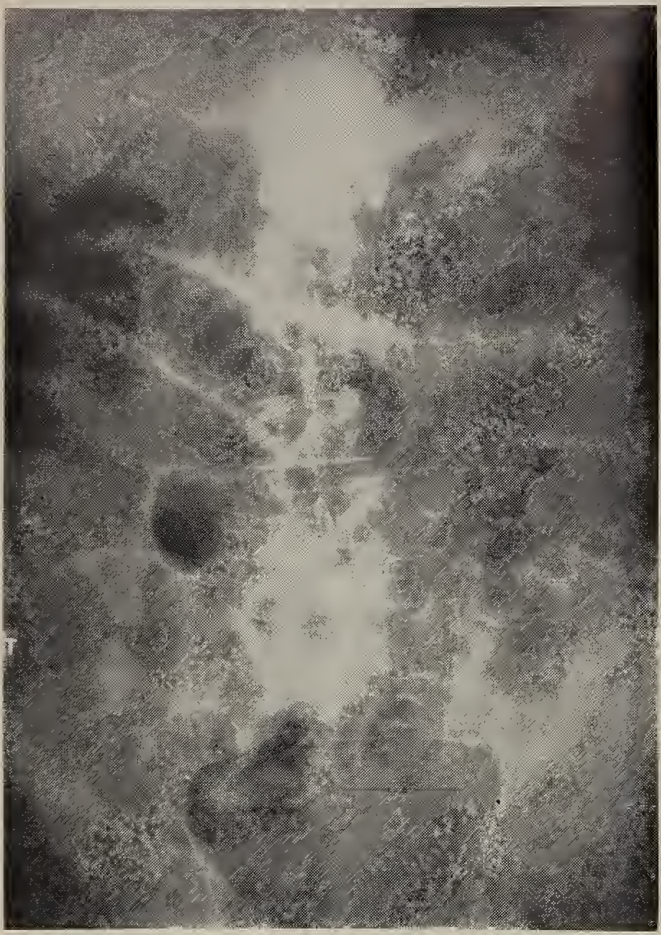

Fig. 1. Flat plate of abdomen which might be interpreted as large bowel obstruction or adynamic ileus.

The patient had begun to run a high fever and showed a badly disturbed electrolyte picture at this time, because of a persistent marked diarrhea. The stools became positive for blood and the peri-anal region became badly excoriated. By February 10, 1955, the diarrhea had been controlled but the potassium had dropped to 2.1 in spite of oral and intravenous administration of potassium chloride. The diarrhea subsided and the patient gradually improved during the next two days; but on February 4, 1955, the diarrhea started again and fever recurred. The stools had been carefully analyzed for evidence of amobae or other parasites. Cultures had shown a good growth of E. coli and other gram negative bacilli, with only a few staphylococci. The patient had been on Penicillin and Streptomycin and later intramuscular Achromycin. An upper gastrointestinal series and cholecystogram on February 16 showed a large hiatus hernia, duodenal diverticulum, gallstones, urinary bladder stones and some pylorospasm. Overnight, on February 17, 1955, the patient became obstructed completely. On the morning of February 18 he was in critical condition with marked distention and vomiting. In the operating room an endotracheal tube was inserted under topical anesthesia and large amounts of greenish vomitus were aspirated from the tracheobronchial tree. The patient was then given pentothal-cyclopropane while a transverse colostomy was quickly performed. Generalized peritonitis was not present, but a smooth non-fluctuant mass was palpable in the low sigmoid region. The patient recovered from severe aspiration pneumonia and was released from the hospital on March 19, 1955, in good condition. The involved sigmoid area was resected eight weeks later, and an end-to-end two layer silk anastomosis was done. Three weeks following that, he was readmitted and the transverse colostomy was closed. The patient is now doing well.

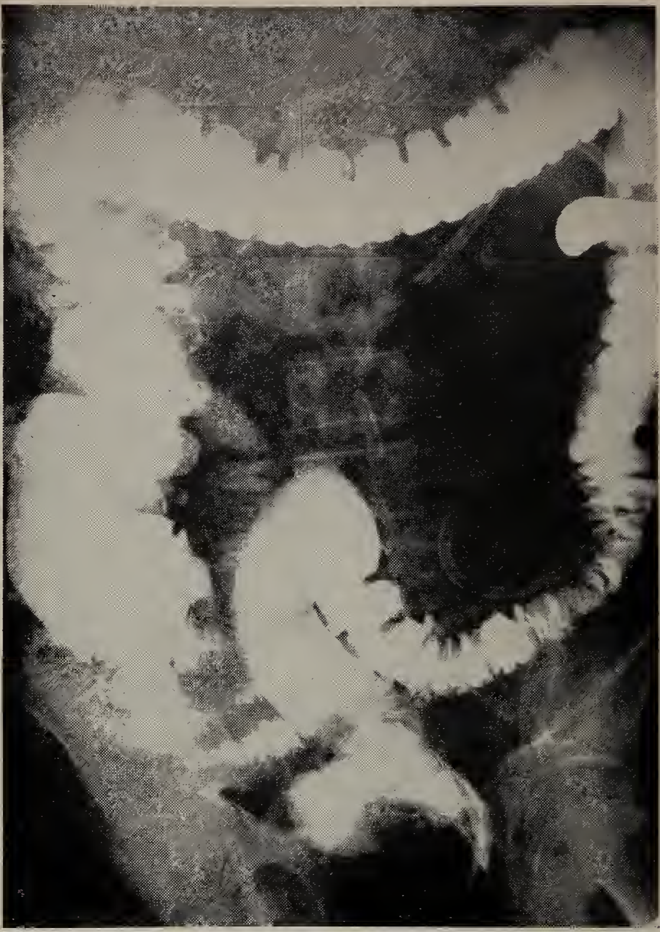

Fig. 2. Barium enema done three days later, showing marked improvement in the intestinal obstruction. Diverticulosis is demonstrated with narrowing of a portion of sigmoid. The mucosal pattern is intact.

This represents severe intestinal obstruction due to an inflammatory mass and also a problem in differential diagnosis which easily could be confused with carcinoma. In retrospect, it is seen that mistakes were made in his management. Since he responded so well to intestinal decompression by intubation, a one stage resection was being planned. Meanwhile, the patient got worse and almost died. It would probably have been much better to have done a transverse colostomy early in his course and thus have prevented the almost fatal persistent diarrhea, electrolyte disturbance and recurrence of complete obstruction.

Case 3. M. B. A white female, aged 63 years was admitted to St. Luke's Hospital on July 25, 1954, complaining of aching pain and tenderness in the left lower quadrant, pain in the low back and legs, anorexia and weight loss of 25 pounds during the preceding six weeks. She appeared well, except for marked tenderness in the left lower quadrant and the presence of a cul-de-sac mass palpable through the rectum. Proctoscopic examination revealed the lumen to be closed at the 10 cm. level by edematous, red mucosa. No evidence of tumor was seen. On barium enema, the entire colon could be canalized, but there was some delay in canalization of the retrosigmoid area, the same general area where the mass could be palpated (fig. 3). Numerous diverticula were seen throughout the colon and were most numerous in the sigmoid region just proximal to the strictured area, which measured about 18 cm. in length. After the colon had been prepared on sulfathallidine and enemas, on August 3, 1954, an exploratory laparotomy was done, with the diagnosis of either carcinoma or diverticulitis being considered. At operation, a mass was found in the region of the lower sigmoid and attached to the pelvic wall, uterus and small intestine. The tissues were edematous and friable, making dissection very difficult, so that this was abandoned. A transverse colostomy was done through the upper portion of the incision. Because of a low grade septic temperature and the persistence of a globular mass, which was possibly fluctuant, in the cul-de-sac, a posterior colpotomy was done on August 16, 1954. No pus was obtained and little drainage ensued. However, the patient became afebrile and continued to do well. Because carcinoma had not been definitely ruled out, exploratory operation was done on August 24, 1954. This was three weeks after colostomy. Marked inflammatory reaction was still present in the pelvis around the lower sigmoid. A colotomy was done and a sterile sigmoidoscope was introduced. The involved area of sigmoid was red and edematous so that the lumen was almost completely occluded. It was felt that this mass was inflammatory and that carcinoma could be ruled out. The colon was closed with no further exploration done. The patient has continued to do well and a resection of the sigmoid area is being considered for the near future.

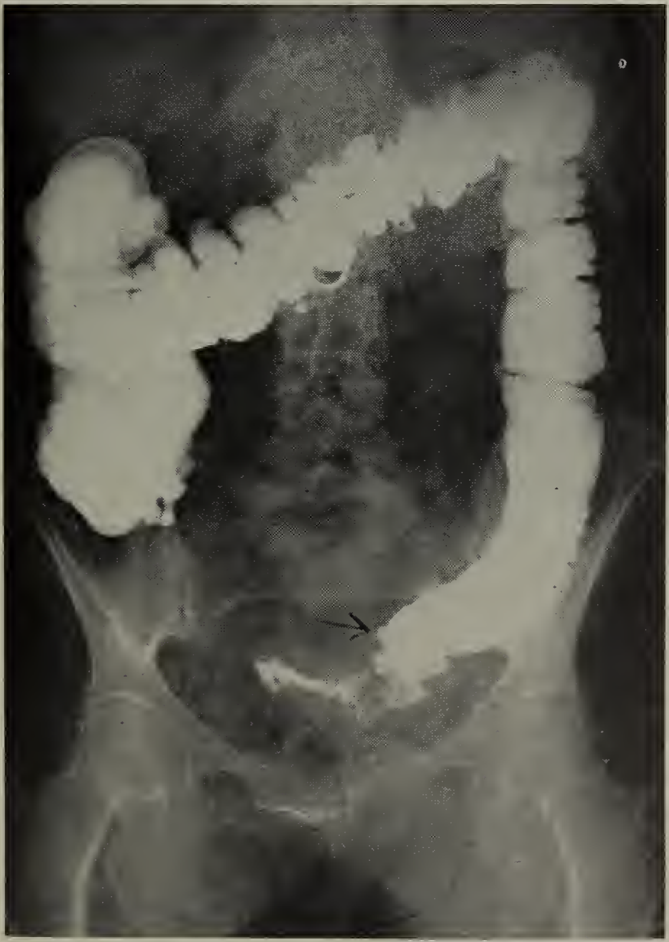

Fig. 3. Repeat barium enema demonstrates diverticula which makes this condition more likely benign.

This is a case of recurrent diverticulitis in the left lower quadrant causing low grade intestinal obstruction and presenting a palpable mass. It once again demonstrates a difficulty in making a differential diagnosis between carcinoma of the sigmoid colon and diverticulitis. It also demonstrates the folly of even considering resection during the acute phase. The most important thing about this case is that it illustrates a valuable diagnostic step; that is, the use of the sterile sigmoidoscope through a colotomy to differentiate between an actual malignant growth and an inflammatory condition. Care should be used so that malignant cells are not spilled. Many radical operations and even multiple organ resections have been done on cases of diverticulosis thought to be carcinoma with local invasion.

Case 4. C. F. A white male, aged 67 years, was admitted to St. Luke's Hospital on December 27, 1954, for excision of a vesico-colic fistula. This patient had been known to have diverticulosis of the sigmoid colon for two years. He had been noting suprapubic pain thirty minutes prior to and relieved by each bowel movement. He was hospitalized for five days at that time and improved on a conservative regimen. There was a past history of coronary thrombosis five years previously. Ten days after being discharged from the hospital, he developed a vesico-colic fistula, manifested by dysuria, suprapubic pain and the passage of gas and feces per urethra. Cystoscopy was performed and the vesical orifice of the fistula was cauterized. This was repeated numerous times on an out-patient basis during the ensuing months with considerable temporary relief. He was rehospitalized in March 1954 with another episode of acute sigmoid diverticulitis. This again improved on conservative management. He was readmitted in November 1954 because of persistence of the vesico-colic fistula and recurrent left lower quadrant and suprapubic pain. On this admission a transverse colostomy was done as a preliminary to resection of the sigmoid. On December 27, 1954, three weeks later, the patient was readmitted and the involved portion of the sigmoid, including the fistula, was resected. The bladder wall was involved by much scar tissue and the small opening in the bladder could not be closed. A retention catheter was placed in the bladder because of this. The upper sigmoid was anastomosed to the rectum with a single row of interrupted silk sutures, after the splenic flexure had been mobilized. This patient died from cardiac complications three days postoperatively and the autopsy revealed a large aneurysm of the left ventricle and marked coronary arteriosclerosis. The bowel anastomosis was intact and there was no peritonitis.

This is an example of one of the worst complications of diverticulitis, that of vesico-colic fistula. Colcock states that diverticulitis is the most common cause of vesico-colic fistula. This man underwent numerous cystoscopies and considerable discomfort and inconvenience. It was because of this that an attempt was made to alleviate his disorder in spite of his precarious cardiac status. In the therapy of this condition there is a choice of a three stage or a one stage resection. In this case, preliminary colostomy was decided upon, with subsequent resection of the involved area and closure of the fistula with the colostomy to be closed at a later date. Many such cases are managed by a one stage resection, after adequate bowel preparation, if there is no element of obstruction or active inflammation present at the time. The subject of vesico-colic fistula is thoroughly discussed in many articles (Mayo and Blunt,[14] Morrisey,[18] Colcock,[3] Ormond[20]).

Case 5. O. L. A white male, aged 62 years, was admitted to St. Luke's Hospital on August 10, 1954, because of benign prostatic hypertrophy which was treated by transurethral resection. During his postoperative course, shortly before he was to be discharged, he suddenly developed signs of peritonitis, including generalized abdominal rigidity, tenderness and pneumoperitoneum. The latter was confirmed by x-ray examination (fig. 4). A diagnosis of perforated peptic ulcer was considered. Laparotomy revealed a perforation of the cecum with generalized peritonitis. The colon was markedly distended and a mass was palpated in the sigmoid colon. A large rubber tube was inserted into the cecum through the perforated area and this was exteriorized as a cecostomy. After a rather stormy course the patient recovered. The cecostomy closed after several weeks as the obstruction in the sigmoid region resolved with the subsidence of the inflammatory mass. Subsequent barium enemas revealed marked involvement of the sigmoid region by a diverticulosis. The patient is having bowel movements per rectum and is relatively asymptomatic at this time. He is being considered for a one stage resection of the sigmoid.

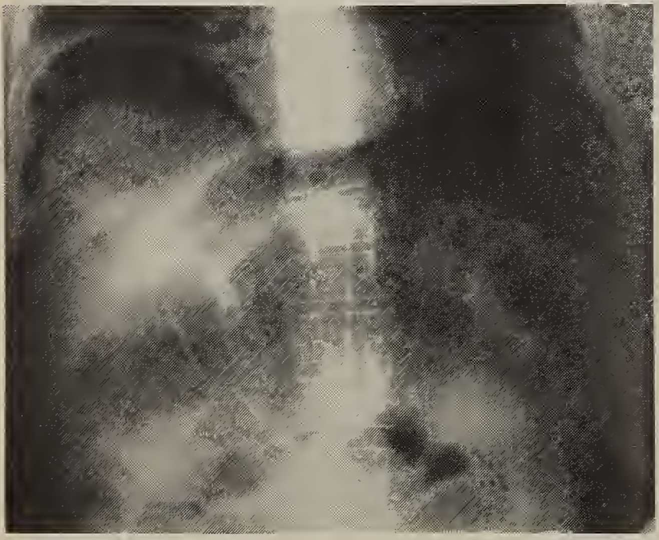

Fig. 4. Erect film of abdomen, demonstrating marked pneumoperitoneum from perforation of the cecum.

This presents an unusual complication in that the cecum perforated. It is not unusual to have intestinal obstruction itself caused by diverticulitis, or to have a perforation of the cecum secondary to intestinal obstruction by cancer of the distal colon; but, in reading the literature, no other cases of perforation of the cecum secondary to diverticulitis were noted. Cecostomy is not usually recommended for decompression and by-passing of the fecal stream in sigmoidal diverticulitis, because of its inadequacy in completely diverting the fecal stream. There is a great tendency for an acute diverticulitis to recur before other specific therapy can be instituted. In this case, in which the cecum was already perforated, there was little choice. This patient has been fortunate, in that no subsequent episodes of acute inflammation have occurred thus far.

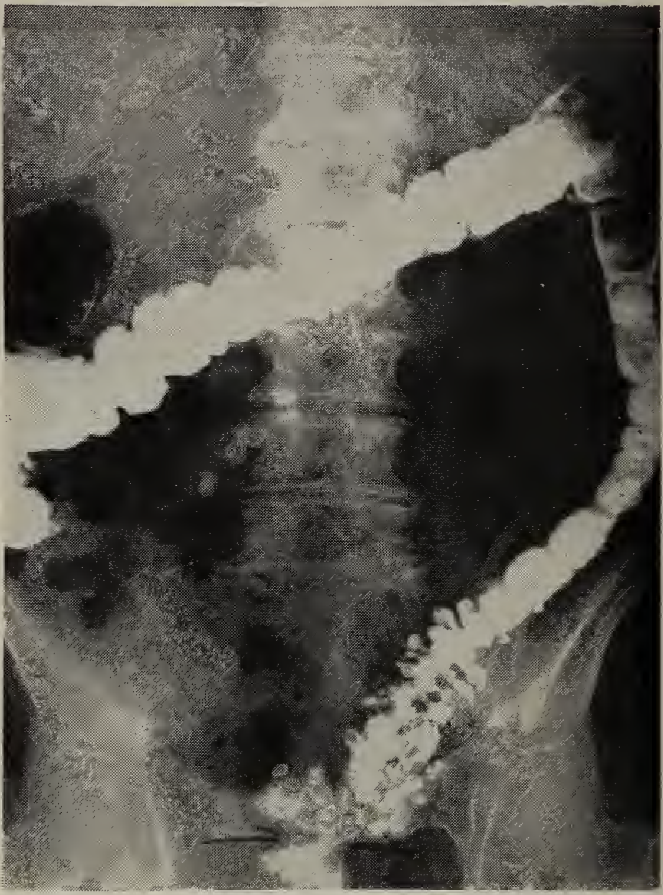

Fig. 5. This woman had marked diverticulosis with a coincidental carcinoma of the recto-sigmoid. It was not an annular constricting lesion, which might be suggested on x-ray, but rather a polypoid tumor.

Case 6. S. H. A white woman, aged 78 years, was first seen in St. Luke's Clinic on February 7, 1955, because of a brown, pigmented lesion on the right brow. During physical examination, a polypoid lesion was noted 10 to 12 cm. up in the rectum on the anterior wall. A biopsy was done and it was found to be adenocarcinoma. Barium enema revealed marked diverticulosis of the sigmoid and descending colon with a constricted area in the sigmoid (fig. 5). At operation, on February 11, 1955, after adequate bowel preparation, a difficult resection of the rectosigmoid was done, which necessitated mobilization of the splenic flexure. Because of a rather precarious low anastomosis, a transverse colostomy was done to defunctionalize the remaining colon temporarily. Three weeks later, the colostomy was resected and closed by end-to-end anastomosis. This was quite difficult because of edematous omentum and mesentery of the transverse colon. The newly anastomosed colon functioned poorly for the first week, causing distention limited to the right colon. This eventually opened up well and the patient recovered without further difficulty. She was discharged on March 25, 1955.

This case illustrates the coexistence of a deformity of the sigmoid colon caused by diverticulitis and carcinoma of the sigmoid colon. There has been much interest in this subject, but no evidence has been given thus far to show that carcinoma occurs more commonly or less commonly in association with diverticulitis (Shaiken[24]). As to the surgical management, this would have been a one stage resection, except that the anastomosis was so low in the pelvis that a transverse colostomy safety factor was thought necessary. The patient suffered considerable morbidity, however, from the closure of the colostomy only three weeks post-operatively in this case.

Case 7. T. M. A white male, aged 65 years, was admitted to St. Luke's Hospital on May 18, 1955, with a history of chronic constipation and small caliber stools for ten years. During the last year he had noted tenesmus and occasional bloody stools, associated with a 15 to 20 pound weight loss. He also complained of "arthritis" of the lumbar region and some pain in the lower extremities. Barium enema revealed a 3 cm. polyp in the sigmoid region with concurrent diverticulosis of the sigmoid and ascending colon. Stools were positive for blood. The patient also had urinary symptoms due to prostatic enlargement. Sigmoidoscopic examination was normal. After adequate bowel preparation with enemas, cathartics and neomycin, the sigmoid colon was resected and a two-layer silk end-to-end anastomosis was accomplished. The specimen contained a large, pedunculated, benign polyp, along with several diverticula. The patient made a rapid recovery, except for some urinary difficulty. He is to be readmitted at a later date for prostatic surgery.

Quite a controversy has occurred as to whether diverticulosis can be a common cause of intestinal bleeding. In this instance, the bleeding was undoubtedly coming from this large, benign polyp, even though there are a number of cases on record in which minimal to massive hemorrhages from diverticulosis have been reported. Noer[19] reviews twenty-eight reported series for a total of 324 cases of bleeding out of 2,894 cases of diverticulitis for an average of 30 per cent.

Case 8. B. P. A white male, aged 36 years, was admitted to St. Luke's Hospital on September 29, 1954. About two and a half years prior to admission, he had suffered an attack of left lower quadrant pain, associated with fever and constipation. He continued to have occasional short lived bouts of left lower quadrant pain and constipation. On several occasions he thought he could feel a "lump" in the left lower quadrant. His symptoms were usually brought on by ingestion of "rough" foods such as popcorn. Four days before this admission, he ate some popcorn. The next day he awoke with left lower quadrant pain and fever. He was hospitalized elsewhere the next day and given Penicillin. On the day of admission to St. Luke's, he had suddenly become much worse. He had an episode of sudden pain in the left lower quadrant and fainted. After that, his abdomen became distended and he began to vomit. The abdominal pain became generalized.

On admission to St. Luke's Hospital, his temperature was 40.3 C., the white blood count was 14,800 and the hemoglobin was 16. The abdomen was generally tender and quite distended. There was marked muscle guard, especially over both lower quadrants. The patient was given intravenous fluids, started on antibiotics and within two hours had an emergency laparotomy which revealed generalized peritonitis with feces floating free in the lower abdomen. A perforation in a diverticulum of the sigmoid was found. This area was edematous, friable and quite vascular. Large Penrose drains were inserted and a transverse colostomy was done. The patient recovered nicely and was sent home with the transverse colostomy functioning and still some discharge from the drainage site in the left lower quadrant. He was seen again on November 23, 1954, and was doing well, except for slight drainage in the left lower quadrant. A barium enema at that time revealed diverticulosis of the sigmoid with no evidence of tumor. The patient was sent home and went back to work for several weeks. On March 29, 1955, the involved area of sigmoid was easily resected and an end-to-end anastomosis with two layers of silk was accomplished. On April 8, 1955, the transverse colostomy was closed. The patient did well and has had no further difficulty to date.

This case represents a generalized peritonitis secondary to perforation of a diverticulum. The patient had, undoubtedly, had recurrent diverticulitis for several years. The fact that he was 36 years old makes this an unusual case because it is generally a condition of people over 50. It was managed by a three-stage resection with good results. Note that the time lapse between the initial episode and resection was six months.

Recently two cases of perforation of non-inflamed sigmoidal diverticula have been reported by Fitts and Anderson.[5]

Case 9. B. K. A 75 year old woman was seen in St. Luke's Clinic on December 23, 1954, complaining of abdominal pain and black diarrhea of five days' duration. The pain was localized to the right lower quadrant where an orange sized mass was palpated. The diarrhea had ceased twenty-four hours previously. She was hospitalized with the impression of appendiceal abscess or carcinoma of the cecum. The admission laboratory studies showed the white blood count to be 6,400, with a normal differential; hemoglobin 15 grams and the stool was negative for blood. The temperature was 36.8 C. A barium enema done as an emergency measure showed colonic diverticulosis, including the ascending colon. No diverticulum could be filled in the exact area of the palpable mass. There was no x-ray evidence of an intrinsic cecal mass. Gallbladder function was normal. It was agreed that an inflammatory mass, probably secondary to diverticulitis, was being dealt with, so the patient was placed on a bland diet, sulfasuxidine by mouth and bed rest. During the ensuing three days, the patient became much more comfortable and the right lower quadrant mass disappeared. She was discharged on January 6, 1955, feeling quite well. She has been temporarily lost to follow-up.

The black diarrhea this woman described may have been due to bleeding, but this could not be proven. Diverticula of the cecum are much more rare than in any other portion of the colon, but there are several cases reported. When they do occur, they are frequently solitary. Jonas[9] in 1940 reported fifteen cases of solitary cecal diverticula that he found in the literature, plus an additional five cases treated at Johns Hopkins Hospital. He did not include cecal diverticula occurring as a part of generalized colonic diverticulosis. These solitary diverticula seemed to occur in a somewhat younger age group. They were most frequently confused with acute appendicitis and carcinoma of the cecum. Some were treated by exclusion of the diverticulum and other cases required right colectomy.

Sanderson and Madigan[23] recently reported two cases of solitary diverticulitis. The first was a case of diverticulitis of the cecum simulating an appendiceal abscess in a 42 year old woman. This was treated by right colectomy. The second occurred in a 34 year old white woman as a diverticulum of the right part of the transverse colon requiring segmental bowel resection.

Case 10. E. R. This 78 year old white woman had suffered from chronic constipation associated with occasional abdominal cramps for many years. She was first seen at St. Luke's Hospital in October 1949 for repair of a right inguinal hernia. Because of her gastrointestinal complaints, a barium enema was done at that time which showed many diverticula in the descending colon and sigmoid. This patient was readmitted on March 13, 1951, because of prolapsed hemorrhoids. She had continued to complain of cramping lower abdominal pain and difficulty in bowel movement. A proctoscope could be passed only 8 cm. Hemorrhoidectomy was delayed for another barium enema which again showed a picture similar to that mentioned before. In August 1951 a hemorrhoidectomy was done. The patient had passed bright, red blood per stool during the last few weeks and this was assumed to be from hemorrhoids. On August 9, 1954, the patient was once again brought back into the hospital because of 30 pound weight loss, abdominal pain as before and eight to ten loose, black stools per day, whereas she had previously had chronic constipation. Even though her stools were loose, they were associated with marked tenesmus. The anal sphincter was quite tight and the bowel was impacted. She was given enemas and the diarrhea soon subsided. A barium enema revealed diverticula as before. The patient was put on Metamucil and a bland diet. Her anal stricture was repaired on August 20, 1954. She improved following this but was readmitted on January 18, 1955, because on follow-up examination in the clinic, a definite mass could be palpated high and anteriorly in the rectum, above the uterus. On January 24, 1955, she was given a general anesthetic and a careful pelvic and rectal examination was done. A tubular, indurated mass could be outlined above the rectal ampulla, which was felt by all who examined her to be thickened, fibrosed sigmoid colon. The sigmoidoscope could be passed 15 cm. and then the lumen became small and the bowel gave a sensation of rigidity from that point upward. The mucosa was intact. Because of the patient's age and general poor condition, operation was not done and she was discharged again on symptomatic therapy for diverculitis. She has continued along the same course as before, with slight improvement.

Were this woman younger and in better physical condition, she would undoubtedly benefit greatly from a one stage resection of the sigmoid colon and she may yet come to this. She could probably be saved considerable morbidity, provided she could withstand the surgery.

Case 11. A. B. This 62 year old white woman was first admitted to St. Luke's Hospital on February 4, 1952, complaining of cramping pain and tenderness in the left lower quadrant, of five days' duration. There was marked tenderness and muscle guard, with some regional tenderness and a poorly defined mass in the left lower quadrant. The white blood count was 13,100 and a diagnosis of left lower quadrant abscess due to ruptured diverticulum was entertained. Exploratory operation was done the same day. At operation, a well walled off inflammatory mass around the sigmoid was encountered. This area was drained and the abdomen closed. The patient made a satisfactory recovery and only a slight amount of drainage occurred. This woman has been followed in the St. Luke's Clinic and has since required a hemorrhoidectomy and repair of a rectocele. She still complains of constipation, tenesmus and severe pruritus ani, associated with kraurosis vulvae, but has had no more attacks of left lower quadrant pain.

In retrospect, exploration was not necessary on this patient, but it is difficult to decide, many times, when simple diverticulitis has progressed into the stage of peridiverticulitis or localized abscess. Most writers feel that these cases should be treated with antibiotics, bed rest and observation and that most of them will subside on this regimen (Horner[8]). A one stage resection of this area was contraindicated because of the acute inflammation present.

Case 12. A. K. This patient had been hospitalized elsewhere from March 1 to March 22 because of congestive cardiac failure. Hhe was 72 years old. The history at that time, other than that associated with cardiovascular status, was that he had suffered with intermittent constipation for several years.

Physical examination, other than the cardiac findings, showed that the liver was palpable three finger breadths below the costal margin and seemed to have a sharp, tender edge. It was thought that the right kidney was "palpable, floating and horizontal." During that admission, several stools had been reported positive for occult blood.

He was admitted to St. Luke's Hospital on May 19, 1952, because shortly after his previous release from the hospital, a mass had been noted in the right lower quadrant. This mass was painless and movable.

A barium enema had shown what was interpreted to be a mass impinging on the cecum. The barium enema also showed multiple colonic diverticula involving the ascending colon, transverse and descending colon. It was felt that this mass might be a carcinoid tumor or a carcinoma of the cecum. Sigmoidoscopic examination was normal.

On May 21, a laparotomy was done through a right rectus incision and a large tumor mass was found involving the lateral wall of the cecum. A number of diverticula were found throughout the colon. There was one large, inflamed diverticulum in the ascending colon, about three inches from the cecum. The cecum and ascending colon were resected to just beyond the hepatic flexure and an ileocolostomy was formed. The patient's postoperative course was relatively uncomplicated.

The specimen consisted of a 6 cm. length of ileum, ileocecal valve and cecum, with about 10 cm. of ascending colon. The entire serosa was reddened and shaggy and several fluid filled diverticula were noted. There was an adherent, cystic mass about 8 by 5 cm. in size, with a thin, pale wall, filled with yellow mucoid material, coming off the cecum. This mucocele directly communicated with a large diverticulum in the wall of the cecum (fig. 6). Microscopic section showed that the lining of the mucocele sac consisted of atrophic mucosa made up of a single row of large goblet cells. There were no glands, stroma or mucosal lymphoid tissue. At some levels, the epithelium was perfectly flat. The pathological diagnosis was mucocele of a cecal diverticulum.

This is an unusual case. No reported cases of mucocele arising in a diverticulum of the colon were found in the literature. It is easy to see how this lesion might be confused with carcinoma of the colon. Right colon resection was the indicated treatment.

TYPES OF OPERATIONS

I. Cecostomy.

This is to be condemned except for unusual cases because the fecal stream is incompletely diverted and the inflammatory process may not subside.

II. Colostomy.

A. Sigmoid: Later resection of involved bowel is made difficult by this procedure. It was formerly used as permanent colostomy when no further attempt was to be made toward resection.

B. Transverse: Transverse colostomy will completely divert the fecal stream if care is taken to separate the two loops adequately. Otherwise, stool may spill over into the distal loop. The right half of the transverse colon should be used so that later mobilization of the splenic flexure will not be interfered with. It is suggested that the colostomy should not be closed until after the involved portion of bowel has been resected and the anastomosis is healed. Recurrent difficulty usually results unless this rule is followed (Wilson[26]). In patients who are treated by colostomy alone, i.e., poor risks, occasionally recurrence of the active process has happened. Loyd-Davis[12] reports a current pelvic abscess in one instance and another patient that developed a vesico-colic fistula under such circumstances. When the colostomy is closed as the last operation in a three stage procedure, we feel that it should be resected and an end-to-end anastomosis of the transverse colon done.

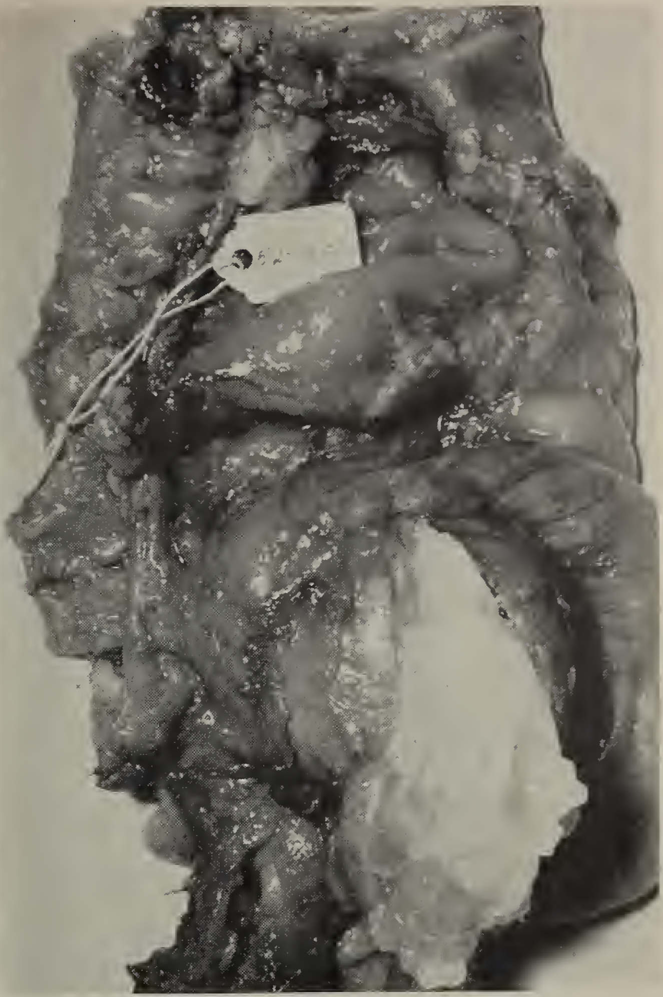

Fig. 6. Photograph of gross specimen showing a large mucocele of a diverticulum.

C. Incision and drainage of abscess: This is usually unnecessary if a diverting colostomy is done and frequently leads to a fecal fistula causing delay in resection.

D. One stage resection of involved portion of bowel: This is preferable to three stage or two stage method, providing certain criteria can be met: (1) If peritonitis is present, obviously a one-stage procedure is out of the question. (2) Marked local inflammatory reaction causing adhesions to surrounding structures would make resection quite difficult and cause considerable morbidity. (3) Intestinal obstruction of more than a slight degree is a definite contraindication to resection and primary anastomosis. (4) Bowel must be adequately prepared.

The two main reasons for attempting to do primary resection are: (1) Cancer is difficult to rule out in many instances. A three stage procedure over six to twelve months, as some have recommended in the past, might be a fatal delay. (2) In general, one operation is easier on the patient than three.

E. Two stage resection: This usually means primary resection with a concomitant transverse colostomy. This is used mainly when the surgeon feels that his anastomosis is insecure and prefers to let it heal while the stool is diverted. The colostomy can usually be closed in two to three weeks.

F. Three stage resection: This must be used in cases of generalized peritonitis, marked local inflammation or intestinal obstruction. In general, it has been quite safe even though three anesthetics and three operations are involved. The main disadvantage is that resection of a concurrent carcinoma might be delayed.

G. Exteriorization or obstructive resection: In general, this method of handling the situation is not necessary and is frowned upon. Rare instances might occur in which this would be indicated. Gilchrist[6] recommends this procedure in certain cases of perforation of a diverticulum.

A summary of indications for operation might then be listed as follows: Three stage: (1) Generalized peritonitis due to perforation of a diverticulum, (2) localized abscess not responding to conservative treatment, (3) intestinal obstruction.

One stage: (1) fistula (may require three stages in some instances), (2) in presence of carcinoma, or when carcinoma cannot be ruled out, (3) bleeding, (4) chronic stenosing diverticulitis forming a narrow, stiff, chronically inflamed sigmoid, (5) recurrent diverticulitis incapacitating patient.

DIAGNOSTIC STEPS TO RULE OUT CARCINOMA

1. Barium enema is by far the most important. In most instances, strictures caused by diverticulitis are longer and have intact mucosal pattern, while carcinoma leaves a shorter defect with interrupted mucosal pattern. These radiologic criteria are outlined by Rowe and Kollmar[22] in an excellent review of diverticulitis complicated by carcinoma.

2. Sigmoidoscopy. It is unusual, actually, to see diverticula through the sigmoidoscope because they occur too high. This procedure may reveal a carcinoma of the rectosigmoid, however.

3. Colotomy and sterile endoscopy is suggested as an excellent method of ruling out carcinoma. Little has been written about using this procedure in attempting to differentiate between diverticulitis and carcinoma. It has been used for years as a method for locating polyps at the time of colotomy. The colon is opened longitudinally through a taenia coli after packs have been properly placed to protect the other abdominal viscera. A purse string suture is placed and a sterile sigmoidoscope is inserted through the colotomy. In diverticulitis the involved mucosa will appear reddened and edematous, usually causing a smooth narrowing of the bowel lumen that is characteristically different from carcinoma. Biopsy is not usually necessary, but may be taken if the surgeon so desires. Care is taken to avoid spilling contents of the bowel, so that tumor will not be transplanted in cases of carcinoma. Rubber shod clamps are placed on either side of the colotomy. By using this method, a difficult one stage resection can be avoided and a transverse colostomy done in preparation for late resection after the acute inflammatory reaction has subsided.

SUMMARY

1. Twelve case histories are presented to illustrate various complications of colonic diverticulosis and a discussion of their surgical management is given.

2. An unusual case, a mucocele of a diverticulum of the colon, is reported.

3. An evaluation of the various types of operations for complicated diverticulitis is given.

4. Diagnostic steps to rule out carcinoma are listed with emphasis on colotomy with sterile sigmoidoscopy in questionable cases.

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THORAZINE* *can allay the suffering caused by the pain of SEVERE BURSITIS*

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1. Howell, T.H.; Harth, J.A.P. and Dietrich, M.: Practitioner *173*:172.
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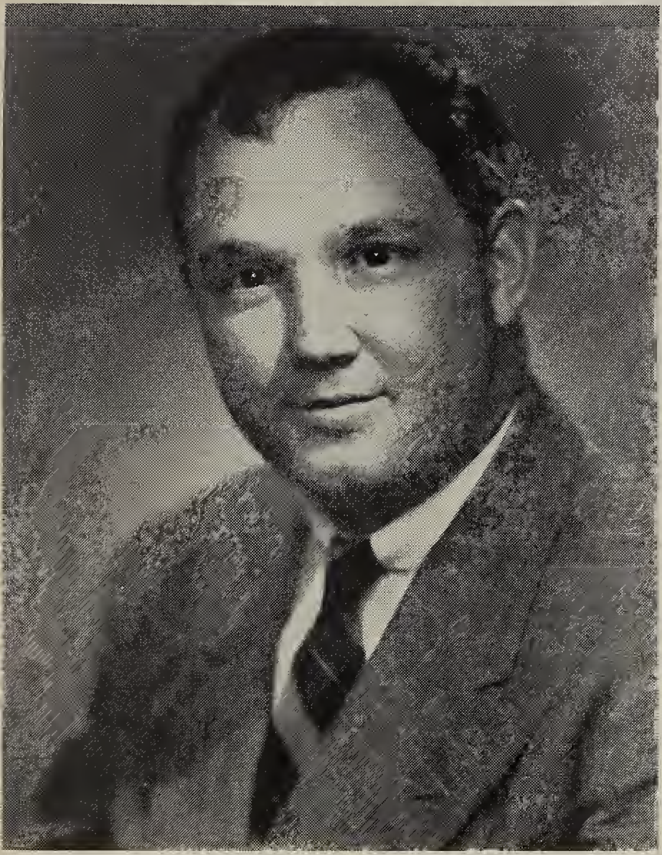
Special Article

The Social Security Bill, H. R. 7225

Representative THOMAS B. CURTIS, *St. Louis*

I AM GLAD to be here to discuss with you the proposals to further extend the Federal Social Security System now pending in this Congress.

As you may be aware, the House of Representatives passed a bill this last session (the first session of the 84th Congress) extending the Federal Social Security System in various ways, the most important of which was the provision to make payment to disabled persons beyond a certain age. It does not specify the age itself because, once the theory is adopted by the Congress, the lowering of the age to include all disabled persons is simply a matter of time.



Rep. Thomas B. Curtis

Before I go into the details of this new proposal to provide disability payments, I would like to pause briefly to pay some attention to the procedures under which this new step in Social Security was taken. Regrettably, the people of this country no longer seem to care about the procedures under which legislation is written. At least, my colleagues in the Congress seem to think that the people no longer care about this fundamental phase of our government and, to date, regrettably, their thinking seems to be based upon reason.

Indeed, I wonder what the A.M.A. thinks about orderly and proper procedures? Or any of our many, many groups concerned with Federal legislation? The rotten (that is the adjective I used on the floor of the House) procedures followed by the House of Representatives in considering legislation that would add two billion dollars a year to our Federal expenditures, met with little or no comment around the Nation.

I want to read to you the speech I made on the floor of the House on this matter. It may seem to veer off the subject of Social Security occasionally, but I think you will agree, on analysis, that it remains on the point.

"Mr. Speaker, of course, it is impossible to discuss the proposed liberalization of the social security program and the proposed financing of it in the time allotted under suspension of the rules. The Speaker knows this and upon his shoulders rests the responsibility of proceeding in such a fashion.

"Here I am opposed to this bill. I am opposed to these procedures, and I have been given three minutes to try to explain to this House just how rotten—and I use that word advisedly—how rotten the procedures were that we have followed in considering this piece of proposed legislation. I could not possibly explain it to this body in the time allotted—I trust the Members will give consideration to the procedures followed and determine for themselves whether they have the required soundness to produce good legislation.

"Hereafter follows the speech I wanted to make so that this body would have some idea of the unsoundness of the proposed legislation as well as the procedures followed. The speech would have taken ten minutes. As a matter of fact, less than ten minutes was available to the three Members of the committee opposing the suspension of the rules.

"The bill before us will cost around $2 billion a year for the next twenty years, after which it probably will cost $2.5 billion, assuming our present estimates are anywhere near correct. This is a gross assumption, I might add, because the very person making these assumptions warned the Ways and Means Committee in executive session that there was little to go on in making estimates concerning disability costs.

Representative (Rep.) Second Missouri District.
Presented before the American Medical Association, November 28, 1955, at Boston, Massachusetts.

"The matter before us today is just incidentally the subject of social security. The real matter before us is the reputation of the Ways and Means Committee and the reputation of the House of Representatives. Judging from the experience I have just gone through as a member of the Ways and Means Committee, where all tried and true methods of procedure required for properly and adequately considering legislation were shoved aside by the power of the majority caucus, I have just a slight hope that the House will be any more concerned than it was about proper procedures.

"The issue facing the membership of this body is quite simple. Let me illustrate. A couple of days ago I was stopped outside the Chamber by two CIO leaders. One said: 'Well, I see you voted against social security.' I said, 'No, I did not vote against social security and you know it.' He said: 'Well, you voted against passing the bill out of committee.' I said: 'I certainly did, and I will vote against the bill on the floor of the House. But I am not against social security.' In fact, I believe I probably have done as much as any member of the committee to try to help the program and certainly have done considerably more than those Members of the majority—which was a majority of them—who attended no executive sessions, other than cursorily, to try to work out the problems as best we could under bad procedures.

"Certainly, anyone voting against the suspension of the rules here today will be branded by a vicious group of politicians as being against social security. That is the whole plan of what has been going on. Everyone here in the House knows it. But the fact that will be done neither makes it the truth nor does it mean that the people of this country or the people of any given congressional district will believe it, if the Congressman of that district will explain the true picture.

"Last year, my colleagues, certain members of the Democratic Party, including the Speaker, took the floor to object to certain remarks which they interpreted to mean that the Democratic Party had been called a party of treason or a party that coddled communism. I added my small voice to this discussion, by condemning the actions of anyone who so stated or so intimated, because I felt that patriotism was a feature of a man's integrity and that there was no basis at all for attacking the integrity of the Democratic Party or any individual in it by such generalities.

"I took that position feeling deeply that for years certain leaders of the Democratic Party had been guilty of a grevious sin, for which they still do not apologize or desist from pursuing, the sin of attacking the Republican Party and members of it by alleging a defect in integrity, which transcends even the virtue of patriotism. I refer to the virtue which is the essence of all Christian religion and of the Jewish faith—love of one's fellow man.

"Now here today, if you please, supposedly I am jockeyed into the position of either voting for this improperly conceived and studied bill in its entirety or of being branded as one not interested in the welfare of my fellow man. Now does anyone here deny that that is the essence of the procedures followed by our leftwing political element who have so long and too long, in my judgment, dominated American political thinking. Either you agree with their brand of government or you are against the people, against the little man.

"Now briefly to the bill itself that comes before us without any committee hearings to guide us, without the committee itself having called either in executive session or public hearings experts and others familiar with the various facets of this complicated proposal.

"What are the dangers and inadequacies? You can read the minority views in the committee report and get a brief résumé. I will only point up a few.

"First, reducing the age of women workers from 65 to 62 will create pressures to force women workers to retire earlier than at the present when the advancements of medicine have been such that our people can be gainfully employed longer, not shorter. And, in fact, for their very health they should be permitted the feeling of being economically valuable to their society.

"Both parties have endorsed the proposed equal rights for women provision of the Constitution. I am probably one of the few members of this body who has refused to sign a resolution following out this endorsement, because I feel that men and women are different—not one superior over the other—just different and yet in the area of retirement from work I see no difference. We are doing the women a disfavor, not a favor in this provision. Mind you, I am not talking about widows or wives of retired workers—the problems are different, and in these fields there are differences between men and women.

"Second, the proposed disability benefits have not been carefully considered. Our states and private enterprise, and, indeed, the Federal government, have made tremendous strides in the field of rehabilitation. Any disability program must be carefully geared into the rehabilitation programs or else the rehabilitation programs can be seriously damaged. No person in the rehabilitation field was even called before our committee to discuss the matter. In fact, in our committee were lengthy academic discussions of what the term "totally disabled" meant. I suggested we call some people from the Labor Department and from the rehabilitation field to go over this matter with us, because the term "totally disabled" is a term we are today beginning to feel applies to very few people. But our committee procedures were to hear no one, record nothing, pass all previously decided in the know-nothing caucus of my Democrat friends of the committee.

"Third. The proposal to make share-croppers self employed instead of employees as is now the law. How did that little gimmick slip into this liberalization bill? What discussion was had on it? What testimony? What is its effect? Well, I'll tell you what its effect is—thousands of southern share-croppers will probably no longer be included in social security. The owner running the operation will be relieved of his 2½ per cent tax. The share-cropper will be responsible for a 3¾ per cent tax. The owner will no longer be responsible for seeing that a return is made. The responsibility will rest on the share-cropper.

"Yes, indeed; it is important that this bill be brought out under a gag rule with no chance of amending. I wonder who in the CIO and A. F. of L. is responsible for this being in the bill or is this something that was needed to cement a deal?

"There are many good features in this bill. One of the best is the new fiscal responsibility. If we are going to increase benefits we must provide payment for the increase. But, as I said in debate last year on the extension of social security, do not let us kid the people about this program being either actuarially sound, fiscally responsible, or something that the people are paying for. The actuarial soundness, the fiscal responsibility, such as it is, is all based upon our children and our grandchildren—when we are the beneficiaries of the program—being willing to tax themselves 9 per cent of gross wages, 4½ for employer and 4½ for employee, 6¾ for the self employed, as we so considerately say they shall in our present legislation.

"But they are the ones who pay the bill. Not the people of today. We pay in our $1 and get out $3, our children and their children make up the $2 difference; that is, if the Congresses they elect go along with this program. I wonder if the Congresses they elect will have the courage to let these tax increases come about? Certainly judging by the recent Congresses since social security has been in effect the answer is an emphatic 'No.' And yet these Congresses have been representing people who got $10 for every $1 put in and more.

"And, finally, and fortunately for the country in one sense, and tragic in another, what we do today will not become the law of the land. All we are engaged in today is making a mockery of the House of Representatives and confirming the mockery already made of itself by the Ways and Means Committee. The Senate leaders have already announced that they intend to hold hearings on this bill. They have already stated that they are not going to abandon, just yet, at any rate, the time tested procedures that produce good legislation and protect against bad legislation.

"I am hopeful that there are in this body at least one third who feel the integrity of the House of Representatives and its committees is of sufficient importance to a free society that they will lay aside partisanship, will take their courage in their hands and vote against this gag procedure, and then take up the burden, and it is a burden, of explaining to their people just what the issues were on the floor today."

Now gentlemen, the Senate will take this Bill up next session beginning in January 1956, because there were not one third of the members of the House of Representatives who saw this issue as I did. I understand a real study will be made of the serious problems—aside from financing, that are involved in this seemingly simple matter of disability payments.

May I give this great organization some advice which I think is sound and basic? As you approach this problem, be certain that you make it quite clear that you are interested in and desirous of solving the problems that confront our disabled people. Otherwise you will soon find yourselves pictured—as have other groups on other subjects —as a group uninterested in human and social welfare unless you adopt the detailed program which these artists are promoting. In these days I am so reminded of the basic plot in the play of King Lear—the Tragedy of King Lear as it is properly titled. It is a simple plot. An old man was getting ready to retire and settle his estate on his three daughters. Before doing so, he asked the three how much they loved him. The first two had eloquent tongues and little integrity and told the old man what he wished to hear. The third daughter, perhaps a little disgusted with the outpourings of her sisters, was factual about her love and pointed out that she expected to get married some day and she would owe some of her love to her husband. We all know the sequel to this story, why it was a tragedy; the promises of the older two proved false and the disinherited third daughter, due to her banishment, was unable to save her father.

I suggest that this plot is an allegory. It is easy to tell the people of this present and voting generation how much we love them and all the things we will do for them. It is another thing to get up and say, but wait, we owe some love and allegiance to the coming inarticulate generation and we cannot pass all our love and consideration on to you. Will we, the American society, end up in tragedy because, like King Lear, we banish the thoughts and those who think and express them because we do not like to hear them? And banish them with a feeling of righteous indignation because we have not heard the words we wanted to hear of all encompassing love for our own selfish generation? Banish them with a tinge of hatred in our souls because we choose to believe that those who express them have no love for the people, the little man, the common man?

It is hard today to get a message out to the

American people. That message must be carried above the din and the shouting of those who say they have all the answers; that these problems are not difficult to solve; that those who say there are difficulties in solving these problems are persons who are trying to thwart the will of the people and are setting up imaginary difficulties.

I could talk here today about the detailed problems of the Social Security System and we could have a serious consideration of them and, through this exchange of ideas, we would arrive at some correct solutions. But any discussion here is of no avail if the people believe that the American Medical Association is not interested in the welfare of the people—that the American Medical Association is not interested in solving the problems many of our people face in getting adequate health and hospital care—that the American Medical Association is not interested in moving on ahead to solve the still existing problems in the rehabilitation field and in the field of geriatrics, one of ever increasing significance.

Many Doctors say to me, "But surely you are wrong in thinking that the people of this country think the medical profession is uninterested in advancing the health and well-being of our people. Look at the advancements in medical care and treatment in this society of ours in the last decades." It is true that never in the history of the world has so much advancement been made in such a short space of time in the health and well-being of a people; it is certainly true that that advancement came through the efforts of our great medical profession and the system of political economics that exists in our society. Yet the people are listening to this wooing voice of professed love which says it is not enough. Let's get all the gold at once, let's kill the goose; those who keep the goose and want to preserve its life are merely trying to keep you from getting the gold. They are your enemies.

Where, indeed, has this world-turned-upside-down philosophy stemmed from? Where we find ourselves in an atmosphere where we cannot discuss things as honest human beings differing from each other, because our integrity has been attacked and we are branded as dishonest men?

Gentlemen, I do not believe I am overstating the case. Because of the forces set loose in our society, it becomes very important that you and other groups whose integrity has been cleverly attacked and smeared get the message to the people as fast as you can, that you do indeed love them, not a hypocritical statement, but an honest one like Cordelia's, but chasten yours by eliminating any feeling of annoyance you may have with the statements of the demagogues which have put you in the position of having to defend yourselves.

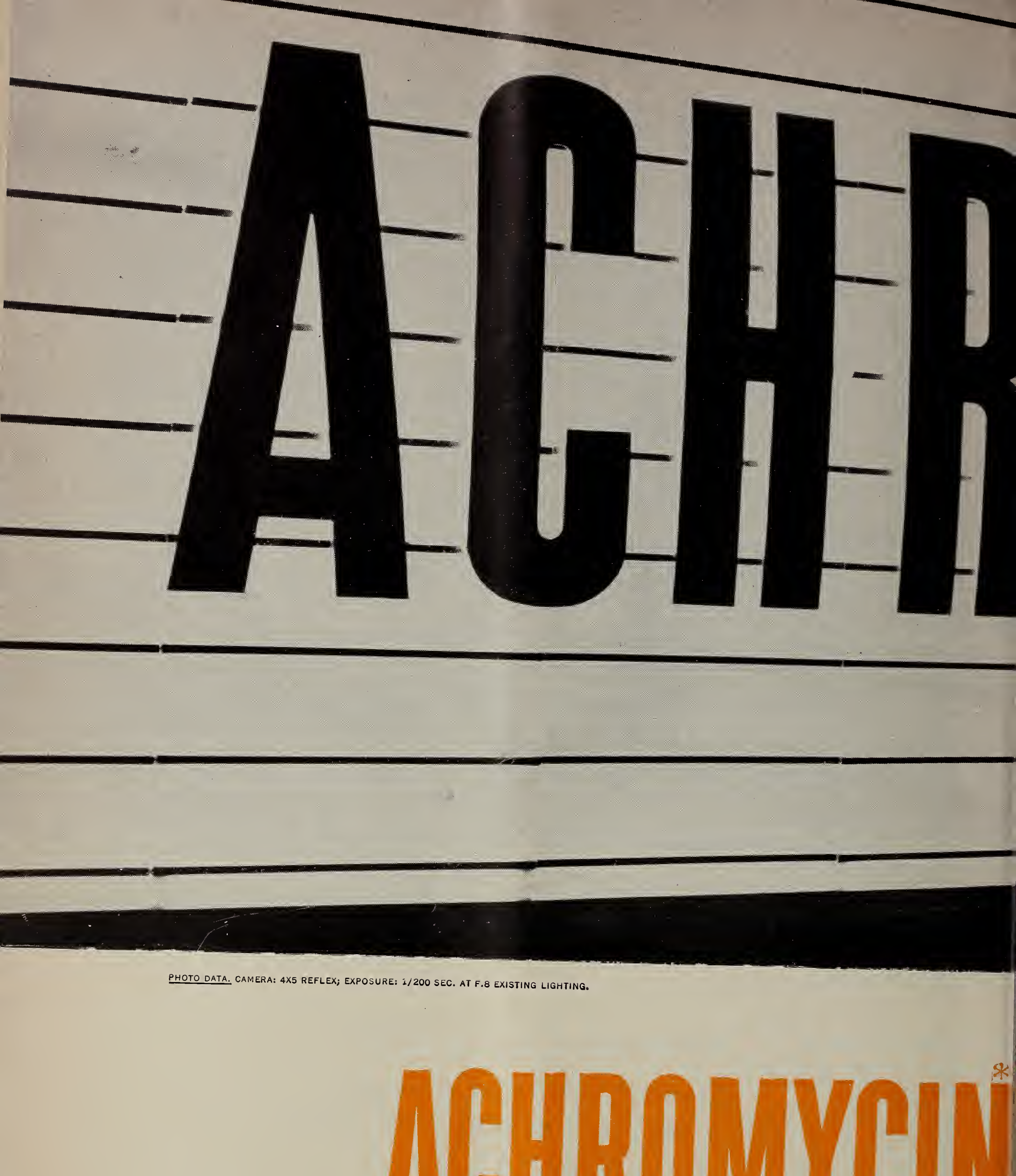
Not only will Social Security snowball beyond our powers to halt its running away, but it can start an avalanche in the over-all powers of the Federal government which may overwhelm us.

This Nation conceived in liberty and dedicated to the proposition that all men are created equal is by no means endowed with immortality. Abraham Lincoln was fearful that any nation so conceived and so dedicated could long survive, knowing full well that the cynical political philosophers had always maintained that such a nation given its own purse strings would spend itself to death. But in Lincoln's day political leaders would make their own decisions on the basis of the facts and arguments surrounding a problem and then report to the people the reasons for their decisions. Today the top political leaders devote their energies, not to leadership, but to trying to figure out what the people are thinking today on the immediate tomorrow. I have great faith, however, that when the American people begin to understand, as I see signs they are beginning to understand, the importance of representatives, not delegates, being in the Halls of Congress, they will act accordingly. Then I, with Lincoln, will assert my faith that this Nation under God shall not perish from the earth.

Have you marked your calendar?

NINETY-EIGHTH ANNUAL SESSION
MISSOURI STATE MEDICAL ASSOCIATION

Hotel Jefferson, St. Louis
April 8, 9, 10, 11, 1956



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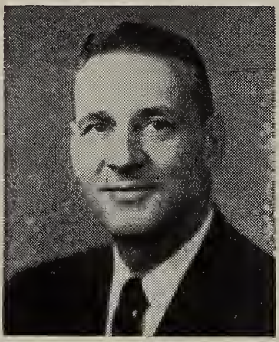
President's Page

A paper delivered at the annual meeting of the American Public Health Association, held in Kansas City in mid November, by Dr. Earl L. Koos, professor of sociology at Florida State University, presented some interesting thoughts regarding patient care. Dr. Koos found as a result of a survey that only 19 per cent of persons interviewed believe that medical care costs too much; 81 per cent believed that costs are not out of line with general costs of living.



Physicians were criticized by 51 per cent for unwillingness to make house calls and for keeping patients waiting far beyond appointment time in the office; 64 per cent of persons were critical of doctors and hospital care because they have become too impersonal and lack the human touch. One person among those interviewed stated: "I don't say our hospitals don't turn you out alive but they certainly don't do anything to help a person psychologically to get well. I think what I am trying to say is, nobody gave a darn about me as a person. I was just somebody filling a bed."

"The responses generally indicated," according to Dr. Koos, "that the patient feels he has been somewhat forgotten in the course of medical and hospital progress. The aura of impersonality said to prevade highly technical care is viewed adversely by patients. The technics of human relations seemingly should go with scientific technics.

"An old question in the world of doctoring is: How much should the people know about medicine? We need only look at any popular magazine to realize people are being offered information on medical developments, sometimes in an unduly optimistic fashion. It seems inconsistent for the medical world to withhold from the role of teaching the public."

We have heard complaints like these quoted from many sources—failure to make house calls; making patients wait for hours in our offices even though they have definite appointments; lack of warmth in our handling of sick people; impersonal hospital handling.

Surely we can do something to correct our own habits in order to improve patient-physician relations.

when Sniffles hit the classroom

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EDITORIALS

From Football to Medicine

No greater or more beloved coach ever coached a football team than Don Faurot, head football coach at the University of Missouri. Famous as the originator of the "Split T," and author of "Football: Secrets of the 'Split T' Formation," Don is probably as well known for his Missouri Plan in college athletic competition. Essentially this plan limits the recruiting of college athletes to within his own state. It has had its good years and its lean years. Everything that lives follows the same rule, and, to be sure, the Missouri Plan lives and breathes as you and I.

With the kind permission of Don Faurot, we should like to borrow his Missouri Plan for Missouri medicine.

The program of a four year Medical School at the University of Missouri did not materialize through a sudden spontaneous effort on the part of its sponsors. It required more than a quarter of a century of concentrated study and planning. It required an informative educational program for the people of our state to convince them of the value of such a school. It was finally achieved on a promise. Let us not forget this promise repeatedly pledged to the people of Missouri. The promise was evidenced in the campaign slogan: "A State Medical School for Missouri Doctors—General Practitioners for the Whole State of Missouri."

What differentiates a general practitioner from a specialist? His medical education is essentially the same up to the date of graduation from medical school. The differentiation begins with his internship. A good rotating internship makes for a good general practitioner, preferably in a non-University connected hospital. It is a well-known fact that university controlled hospitals, even with rotating internships, tend to produce specialists.

Let us follow our plan with the same sincerity that Coach Don Faurot follows his.

Our boys must have rotating internships in good non-University controlled teaching hospitals within our own state to produce general practitioners for the whole State of Missouri.

Martyn Schattyn, M.D.

Ninety-Eighth Annual Session

The Ninety-Eighth Annual Session of the Missouri State Medical Association will be held at the Jefferson Hotel, St. Louis, April 8 to 11, 1956.

Plans and the program for the session are progressing and indications are that it will be a well attended and valuable session. The session will open on Sunday, April 8, with a meeting of the House of Delegates at 1:30 p.m. Other sessions of the House will be held Monday afternoon, at 4:00 p.m., and the final session on Wednesday afternoon, at 1:30 p.m.

The scientific program will begin at 9:00 a.m. on Monday, April 9, and will include symposia, panels and round table luncheons as well as formal presentations. On Monday morning symposia on "Surgery" and on "Pediatrics" will be presented following individual speakers. On Tuesday morning, symposia on "Obstetrics" and on "Medicine" will be given. The afternoon session on Tuesday will close with a panel on "Acute Surgical Emergencies." The Wednesday morning program will include a panel on "What's New in Medicine" covering many phases of practice today. Round table luncheons will offer opportunity for questions and answers on Monday and Tuesday.

Speakers from out of the state who have accepted invitations to present papers in the general meetings include Tom D. Spies, M.D., Birmingham, Alabama, who will speak on "Strengthening the Nutritional Processes During Aging"; William D. Holden, M.D., Cleveland, on "Management of Severe Metabolic Deficits in the Surgical Patient"; Henry L. Barnett, M.D., New York, on "Kidney Disease in Children"; Claude Starr Wright, M.D., Augusta, Ga., on "Victories or Victims: A Critique of Advances in Anemia"; Melvin A. Casberg, M.D., Solvang, Calif., on "The Adequacy of Medical Education"; Leonard H. Biskind, M.D., Cleveland, on "Functional Uterine Bleeding"; T. Leon Howard, M.D., Denver, on "Renal Vicissitudes"; Herbert C. Lee, M.D., Richmond, Va., on "Advances in Surgery of the Pancreas."

Members of the St. Louis Medical Society and the St. Louis County Medical Society will serve as hosts during the session.

Both technical exhibits and scientific exhibits will add to the value of the session. All will be located on the mezzanine floor and the Ivory Room of Hotel Jefferson and will be open Monday, Tuesday and until after the House convenes on Wednesday afternoon.

It is planned that the complete program will be published in the February issue of Missouri Medicine.

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Missouri Medical Meetings

American Academy of Allergy, Chase Hotel, St. Louis; postgraduate review, Feb. 4-5; scientific session, Feb. 6-7-8, 1956.

Missouri State Medical Association, St. Louis, April 8-11, 1956.

St. Louis Pediatric Society—second Thursday of each month, September through May at Medart's Restaurant, 8:00 p.m.

Component Society Meeting Dates

Audrain County Medical Society—third Monday of each month.

Barton-Dade County Medical Society—third Wednesday of each month.

Benton County Medical Society—meets only on call.

Boone County Medical Society—first Tuesday of each month.

Buchanan County Medical Socitey—first Wednesday of each month.

Butler-Ripley-Wayne County Medical Society—first Wednesday of each month.

Callaway County Medical Society—third Thursday of each month.

Cape Girardeau County Medical Society—first Monday of each month.

Chariton-Macon-Monroe-Randolph County Medical Society—second Thursday of each month September through May.

Clay County Medical Society—last Tuesday of each month.

Clinton County Medical Society—meets only on call.

Cole County Medical Society—first Monday of each month.

Cooper County Medical Society—first Monday after the 15th of each month.

Dallas-Hickory-Polk County Medical Society—first Wednesday of each month.

Dunklin County Medical Society—third Tuesday of each month.

Franklin-Gasconade-Warren County Medical Society—last Tuesday of each month at the St. Francis Hospital, Washington, at 12:30 p.m.

Grand River Medical Society (Caldwell-Carroll-Livingston, Grundy-Daviess, Harrison, Linn, Mercer, DeKalb)—second Thursday of each month.

Greene County Medical Society—fourth Friday of each month.

Henry County Medical Society—meets only on call.

Holt County Medical Society—meets only on call.

Howard County Medical Society—meets only on call.

Jackson County Medical Society—fourth Tuesday of each month execpt June, July and August, at auditorium of General Hospital No. 1.

Jasper County Medical Society—second Tuesday of each month, September through May.

Jefferson County Medical Society—meets only on call.

Johnson County Medical Society—meets only on call.

Laclede County Medical Society—second Monday of each month at 6:00 p.m., at the Louise Wallace Hospital, Lebanon.

Lafayette-Ray County Medical Society—second Tuesday of each month at 7:30 p.m., at the Victory Cafe, Lexington.

Lewis-Clark Scotland County Medical Society—meets only on call.

Lincoln-St. Charles County Medical Society—third Thursday of each month.

Marion-Ralls-Shelby County Medical Society—fourth Tuesday of each month. 7:30 p.m.

Miller County Medical Society—meets only on call.

Mineral Area County Medical Society (St. Francois-Iron-Madison-Washington-Reynolds-Ste. Genevieve)—fourth Thursday of each month.

Moniteau County Medical Society—second Thursday of each month.

Newton County Medical Society—meets only on call.

Nodaway-Atchison-Gentry-Worth County Medical Society—first Monday in February, April, October and December.

North Central Counties Medical Society (Adair-Schuyler-Knox-Sullivan-Putnam)—meets only on call.

Ozarks Medical Society (Barry-Lawrence-Stone-Christian-Taney)—second Tuesday of each month September through June.

Pemiscot County Medical Society—third Thursday of each month.

Perry County Medical Society—second Thursday of each month.

Pettis County Medical Society—third Monday each month September through May.

Phelps-Crawford-Dent-Pulaski-Maries County Medical Society—fourth Thursday of each month.

Pike County Medical Society—third Tuesday of each month.

Platte County Medical Society—meets only on call.

St. Louis County Medical Society—second and fourth Wednesday of each month.

St. Louis Medical Society—first, third and fifth Tuesday of each month October through May.

Semo County Medical Society (Stoddard, New Madrid, Mississippi, Scott)—third Wednesday of each month September through May.

South Central Counties Medical Society (Howell-Oregon-Texas-Wright-Douglas-Ozark)—fourth Wednesday of each month.

Vernon-Cedar County Medical Society—meets only on call.

Webster County Medical Society—meets only on call.

West Central Missouri Society—second Thursday of each month.

Musings of the Field Secretary

A number of physicians in greater St. Louis, these days, are taking one of their own prescriptions and, seemingly, enjoying the reaction. They are enthusiastically engaging in a recreational activity, often advised for patients, as a restful and relaxing hobby. These doctors, with the aid of numbers of allied professions, are "blowing and fiddling," at least some of their cares away, in the St. Louis Physicians' Orchestra.

The orchestra was started in the fall of 1954, having its first rehearsal and meeting at the home of Walter J. Siebert, M.D., in September. The sparkplug and prime continuing motivator of the orchestra is a committee composed of Dr. Ben G. Mannis, chairman, who plays first trumpet, Dr. Mary E. Morris, pianist and cellist, secretary-treasurer, Dr. Byron McGinnis, trumpet and Dr. Walter J. Siebert, violin. At present, there are thirty active members of the orchestra. This number includes fifteen physicians of

St. Louis Physicians' Orchestra at a practice session on November 14.

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A BRAND NEW YEAR

AND once again, the sands start slipping slowly downward on another twelve months full of promise, and of challenge.

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whom ten are members of St. Louis Medical Society and five are members of St. Louis County Medical Society. The other fifteen members represent other professions with a doctor's wife or two in the count. Practice sessions are held on Monday nights in the banquet hall of the St. Louis Medical Society Building. The first public appearance was a concert, as part of a hobby show, December 16, 1954, at the St. Louis Medical Society; and they have been going strong ever since. During this last summer, a breather was taken with reorganization and rehearsals getting underway again in September.

The director and musicians work diligently.

The director, who so ably puts the orchestra through its paces, is Mr. Edward Ormond of the St. Louis Symphony. He plays regularly in the symphony but finds time on Monday nights to direct the musical interlude at St. Louis Medical Society. Usually, Mr. Ormond and members of the orchestra begin rehearsals in the usual dress of the day but as the musical tempo and concentration increases, shirt sleeves and loosened collars appear spontaneously.

Much credit is due Mr. Ormond and the orchestra committee for their devoted efforts in making this St. Louis Physicians' Orchestra click. The orchestra committee is a subcommittee of the Public Relations Committee of the St. Louis Medical Society and is fostering a project which has fine concrete, potential public relations value, in addition to individual participating enjoyment and benefit.

Practice was for a concert given on December 5.

Oh doctor! Where is your fiddle or maybe it's a horn?

Incidentally, another entertaining concert was presented by the orchestra at the St. Louis Medical Building on Monday night, December 5.

AMERICAN ACADEMY OF ALLERGY TO MEET IN ST. LOUIS

The American Academy of Allergy will hold its 12th annual meeting February 4 to 8 at the Chase and Park Plaza hotels, St. Louis.

"Indications and Contraindications for Therapy in Bronchial Asthma" will be presented as a panel at 9:00 a.m., on February 4, with Leo H. Criep, M.D., Pittsburgh, as moderator, and panelists will be Harry L. Alexander, M.D., St. Louis; Alvan L. Barach, M.D., New York; Samuel C. Bukantz, M.D., St. Louis; T. S. Danowski, M.D., Pittsburgh; John C. Krants, Jr., Ph.D., Baltimore, and Louis Weinstein, M.D., Boston.

At 2:00 p.m., a panel on "Immunological and Clinical Aspects of Antigen Therapy" will be presented with Oscar Swineford, M.D., Charlottesville, Va., as moderator, and J. Harvey Black, M.D., Dallas; Samuel M. Feinberg, M.D., Chicago, and William B. Sherman, M.D., New York, as participants.

On Sunday morning, February 5, the Association of Allergists for Mycological Investigations, will present a program on research problems currently under study and phases of clinical mold allergy. In the afternoon, the Academy will present a panel discussion on "Pediatric Allergy" with Charles A. Janeway, M.D., Boston, as moderator, and participants will be Harry S. Bernton, M.D., Washington; Ralph Bowen, M.D., Houston; Vincent J. Derbes, M.D., New Orleans; Harry L. Mueller, M.D., Boston; James C. Overall, M.D., Nashville, and Donald L. Thurston, M.D., St. Louis.

The remainder of the session will include presentations by Charles A. Janeway, M.D., Boston, on "The Gamma Globulins"; Sidney Raffel, M.D., Stanford, Calif., on "Bacterial Hypersensitivity"; Carl V. Moore, M.D., St. Louis, on "Immunohematology"; Herman N. Eisen, M.D., St. Louis, on "Pathogenesis of Allergic Contact Dermatitis," and Irvin Kerlan, M.D., Washington, on "Allergy and the Food and Drug Administration."

Physicians are invited to attend the session and there is no registration fee.

DEATHS

Willis, John Buren, M.D., Mayview, a graduate of Barnes Medical College, 1897; honor member of the Lafayette-Ray County Medical Society; aged 81; died October 25.

Blair, Vilray P., M.D., Florissant, a graduate of Washington University School of Medicine, 1893; honor member of the St. Louis Medical Society; aged 84; died November 24.

NEW MEMBERS

Cook, Thomas B., M.D., 112½ West Main, Richmond. Lafayette-Ray County.

Jones, Keith D., M.D., Warrensburg Medical Center, Warrensburg. Johnson County.

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News

The *Cass County Democrat,* on November 24, carried an article with pictures about **J. S. Triplett**, M.D., Harrisonville, announcing his ninetieth birthday on December 2, and telling the story of his life.

"Tuberculosis" was the topic of the Buchanan County Medical Society broadcast on December 4. **Herbert C. Senne**, M.D., was moderator, and participants were **John R. Forgrave**, M.D., **Edsel S. Reed**, M.D., **Irwin I. Rosenthal**, M.D., and **Donald J. Stallard**, M.D., all of St. Joseph.

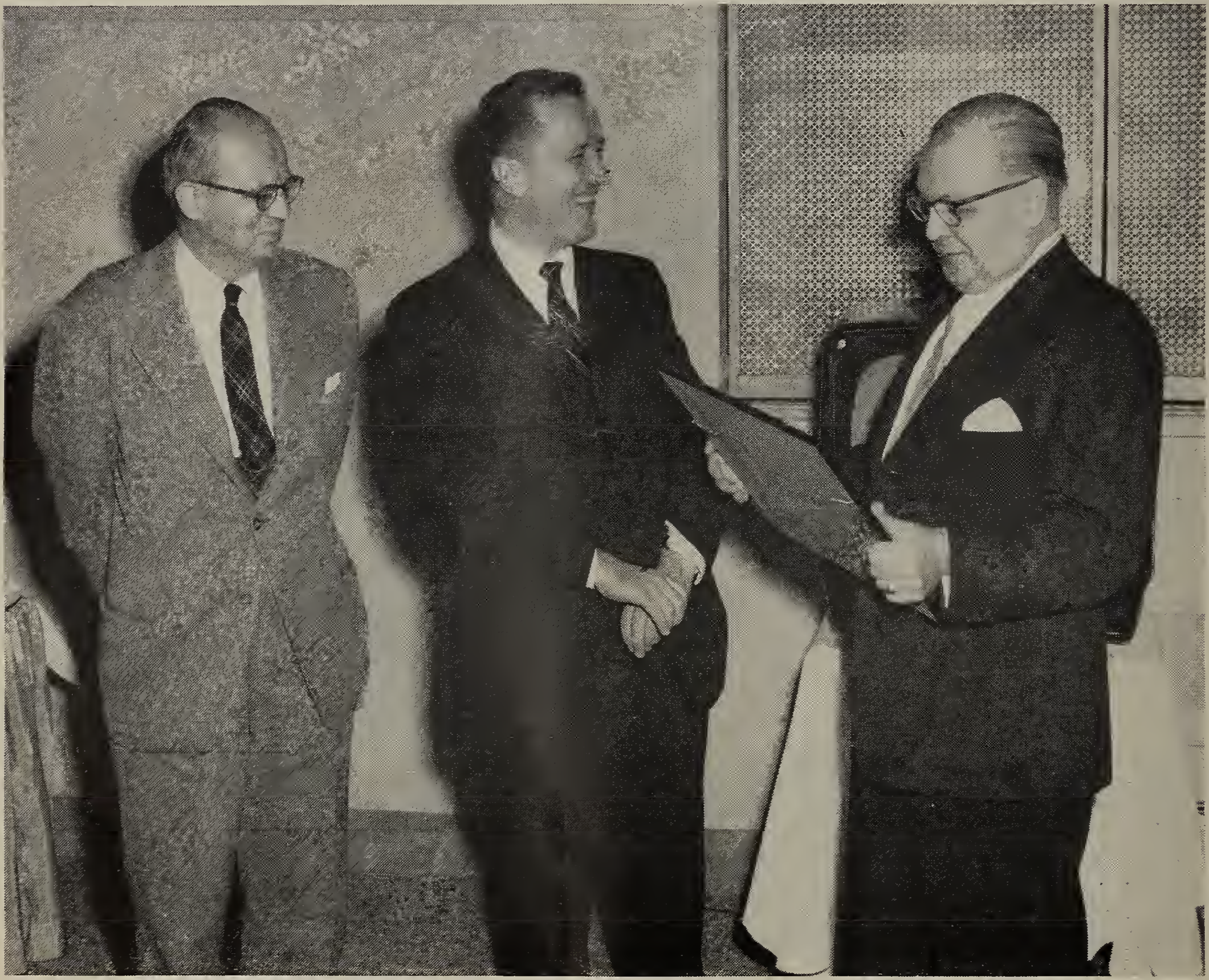
The annual pilgrimage of the St. Louis Medical Society to the grave of Dr. William Beaumont was made on November 21. The address was presented by **Daniel L. Sexton**, M.D., St. Louis, president of the Society.

Word has been received by **H. G. Frame**, M.D., Mountain Grove, of the death of Flagge Philip Wesley, M.D., Alexandria, Va., on November 6. Dr. Wesley was a graduate of Washington University School of Medicine in 1902 and was a roommate of Dr. Frame's, who graduated that same year.

St. Mary's Hospital in Jefferson City will honor the memory of Walter L. Leslie, M.D., by hanging his picture in the hospital.

At a county medical societies civil defense con-

TELEVISION AWARD MADE TO ST. LOUIS UNIVERSITY



Dr. Joseph C. Peden (right), delegate of the Missouri State Medical Association to the American Medical Association, presents a television award for the Saint Louis University School of Medicine to Dr. James W. Colbert, Jr. (center), Dean, in ceremonies held at the Chase Hotel October 31. On the left is Dr. William T. Strauss, Coordinator of Television for Ciba Pharmaceutical Products, Inc., Summit, New Jersey. The presentation followed a nationwide television show, "The Hot Box," telecast direct from the School's Physiology Department over thirty-nine TV stations. The program, the eighth in the "Medical Horizons" series was presented by the pharmaceutical firm in cooperation with the A.M.A. The award was for "an outstanding contribution to the public understanding of medicine."

Pork in the Human Dietary

PORK MAY be looked upon as an important factor in America's general health and well-being. The average intake of pork in America is about 46 pounds of lean pork and 20 pounds of bacon and salt pork per person each year.[1] But America's demand for pork goes further than taste appeal and deeper than mere statistics. Pork makes a valuable contribution to day-in-and-day-out nutrition.

Pork rates among the foremost sources of thiamine. As a source of all other B vitamins and many essential minerals, such as iron and phosphorus, pork meat is considered an important dietary constituent.

Lean pork is virtually completely digestible. Its protein serves to promote growth and aid in the maintenance of tissue cells. Like all high quality protein, that of pork aids in the elaboration of protein hormones, enzymes, and antibodies.

Pork constitutes a valuable part of the daily diet (Table I), and also contributes importantly to the nutrition of the pregnant woman (Table II).

Pork and pork products have won America's favor by their unique combination of economy, palatability, and nutritional value.

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1. Consumption of Food in the United States, 1909-1952, Washington, D.C., United States Department of Agriculture, Bureau of Agricultural Economics, Agricultural Handbook No. 62, September, 1953.
2. Watt, B.K., and Merrill, A.L.: Composition of Foods—Raw, Processed, Prepared, Washington, D.C., United States Department of Agriculture, Agricultural Handbook No. 8, 1950.
3. Bowes, A. deP., and Church, C.F.: Food Values of Portions Commonly Used, ed. 7, Philadelphia, Anna dePlanter Bowes, 1951.
4. Cheldelin, V.H., and Williams, R.J.: Studies on the Vitamin Content of Tissues, II, Houston, Texas, University of Texas Publication No. 4237, 1942.
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7. Estimated on basis of protein content of meats. Sherman, H.C.: Food Products, ed. 4, New York, The Macmillan Company, 1948 p. 155.
8. Recommended Dietary Allowances, Washington, D.C., National Academy of Sciences—National Research Council, Publication 302, 1953.

Cooked Pork Chops, Ham, and Pork Sausage
Nutrients and Calories Provided by 3-Ounce Portions

TABLE I	Protein Gm.	Thiamine mg.	Niacin mg.	Riboflavin mg.	Iron mg.	Phosphorus mg.	Calories
Pork Chops, without bone, cooked, 3 oz.[2]	20	0.71	4.3	0.20	2.6	200	284
Ham, without bone, cooked, 3 oz.[2]	20	0.45	4.0	0.20	2.6	202	338
Pork Sausage, cooked, 3 oz.[3]	14	0.42	2.8	0.20	2.1	139	396

3.5 ounces of fresh pork loin, equivalent to approximately 3 ounces of cooked loin, contains 0.47 mg. pantothenic acid;[4] 0.10 mg. pyridoxine;[4] 0.005 mg. biotin;[5] 36 mg. inositol;[4] 0.08 mg. folic acid;[4] 0.0027 mg. vitamin B_{12};[6] 63 mg. chlorine;[7] 0.1 mg. copper;[7] 20 mg. magnesium;[7] 280 mg. potassium;[7] 70 mg. sodium;[7] and 0.01 mg. manganese.[7]

TABLE II

Nutrients and Calories of Cooked Pork Chops (3 ounces) Expressed as Percentages of Recommended Daily Dietary Allowances[8]

Percentages of Allowances for:	Protein	Thiamine	Niacin	Riboflavin	Iron	Phosphorus	Calories
Girls, 13-15 years of age; weight, 108 lb.; height, 63 inches.	25%	55%	33%	10%	17%	15%	11%
Women, 25 years of age; weight, 121 lb.; height, 62 inches.	31%	59%	36%	14%	22%	17%	12%
Pregnant Women (3rd trimester)	25%	47%	29%	10%	17%	13%	11%

The nutritional statements made in this advertisement have been reviewed by the Council on Foods and Nutrition of the American Medical Association and found consistent with current authoritative medical opinion.

American Meat Institute
Main Office, Chicago...Members Throughout the United States

ference held at the American Medical Association on November 12 and 13, **Carroll P. Hungate**, M.D., Kansas City, was one of the moderators.

Among speakers at a pharmacy seminar at the University of Kansas City on November 10 was **Jesse D. Rising**, M.D., Kansas City.

For being the oldest graduate of the University of Missouri medical alumni present at Homecoming recently, **A. J. Campbell**, M.D., Sedalia, was presented a University of Missouri serving tray. **Frank G. Mays**, M.D., Washington, president of the Medical Alumni, made the presentation.

The November issue of the *Missouri Alumnus* carries a picture of **Ralph R. Coffey**, M.D., Kansas City, as a former president of the M Men. The picture was taken at a reunion luncheon of ex-athletes at Homecoming of the University.

Participating in dedication ceremonies of the Jackson Clinic at Madison, Wis., on October 26, was **Claude J. Hunt**, M.D., Kansas City.

"Professional Aspects of Preparation for Marriage and Family Planning" was the subject of an institute for graduate nurses at the University of Kansas Medical Center on November 17. Participating in the institute were **Albert Preston, Jr.**, M.D., **Drury M. Love**, M.D., **Robert F. Lamar**, M.D., **Andrew D. Mitchell**, M.D., **J. Milton Singleton**, M.D., **Louis H. Forman**, M.D., **Dan L. Berger**, M.D., **Sylvia Allen**, M.D., **W. J. Stelmach**, M.D., **Jacob Zellermayer**, M.D., and **Bela K. Kent**, M.D., all of Kansas City.

"Medical Aspects of Disaster" was the subject presented by **Carroll P. Hungate**, M.D., Kansas City, at a meeting sponsored by the Woman's Auxiliary to the Buchanan County Medical Society on November 21.

Presentation of the William P. Howe award for promoting school health by the American School Health Association was made by **Guy N. Magness**, M.D., University City, to Dr. Cyrus H. Maxwell, Washington, D. C., at a recent meeting of the association in Kansas City.

The Buchanan County Mental Health Society recently elected **H. Ewing Wachter**, M.D., St. Joseph, as its president.

Appearing on the program of a postgraduate neurosurgery meeting of the University of Oklahoma School of Medicine at Oklahoma City on December 8, **Leonard T. Furlow**, M.D., St. Louis, discussed "Trigeminal Neuralgia."

The Kansas City Area Hospital Association had named Miss Susan Jenkins as executive director. Miss Jenkins has been with the Blue Cross-Blue Shield plans in Kansas City.

The American College of Surgeons has reelected **William J. Stewart**, M.D., Columbia, for a three year term as Missouri representative on its board of governors.

COURSE IN COMMON NEUROLOGICAL SYNDROMES

A course in the more common neurological problems will be presented for general practitioners by the American Academy of Neurology in St. Louis, on April 25. This one day course has been authorized by and has the wholehearted support of the American Academy of General Practice. It has been evaluated at six hours credit in Category II.

Diseases of the nervous system implicated a large segment of the population and there has been a tremendous accumulation of literature, most of it published only in neurological journals, covering some of the newer aspects of the diagnosis and treatment. "Common Neurological Syndromes" will cover most of the problems with which the general practitioner is confronted and emphasis will be on the clinical and therapeutic aspects. The formal lectures will cover such subjects as headaches, strokes, convulsive states, the Parkinsonian state, neurological emergencies, metastatic carcinoma to the central nervous system, common disorders of muscles, peripheral nerve lesions, weakness of the lower limbs, neurosyphilis in the post penicillin era, neurological manifestations of the blood dyscrasias, and treatment of infections of the central nervous system. Recognized authorities on these subjects will be selected, as lecturers, from the membership of the American Academy of Neurology. The evening will be reserved for two question periods, one devoted to the subjects presented during the day, and the other to any neurological subject.

The enrollment fee for Common Neurological Syndromes is $10.00 and application for membership should be directed to Mrs. J. C. McKinley, executive secretary, American Academy of Neurology, 3501 East 54th Street, Minneapolis 17, Minnesota. The fee should accompany the application. Refund of fees, for those who later discover they cannot attend, is possible up to April 1. To provide adequate seating and acoustic facilities, it is necessary for the committee on arrangements to have reasonably early knowledge of the number that will attend. It is therefore important that those who intend to enroll do so as early as possible.

In addition to the course on Common Neurological Syndromes, which is oriented for the general practitioner, the American Academy of Neurology will present nine one day courses April 23 to 25 inclusive. These courses, neuropathology, neurochemistry, neurophysiology, electrodiagnosis, neurological diseases of infancy and childhood, injuries to the central nervous system, extra-pyramidal disorders, infections of the nervous system and convulsive disorders, though still emphasizing clinical and therapeutic aspects, will go into greater detail and will be oriented for the neurologist. Any general practitioner wishing to do so, may enroll for attendance in any one or more of these courses. For further information about these courses, write the executive secretary.

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in anxiety and tension states
. . . in hypertension

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As a tranquilizing agent in office practice, Raudixin produces a calming effect, usually free of lethargy and hangover and without the loss of alertness often associated with barbiturate sedation. It does not significantly lower the blood pressure of normotensive patients.

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- Less likely to produce depression
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- Raudixin is not habit-forming; the hazard of overdosage is virtually absent. Tolerance and cumulation have not been reported.
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Sig.: 1 tab. b.i.d.

*Ataractic, from ataraxia: calmness untroubled by mental or emotional excitation. (Use of term suggested by Dr. Howard Fabing at a recent meeting of the American Psychiatric Association.)

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Councilor District News

FIRST COUNCILOR DISTRICT

DONALD M. DOWELL, CHILLICOTHE, COUNCILOR

Grand River Medical Society

The Grand River Medical Society met November 10, at the Strand Hotel, Chillicothe. Twenty-nine members, twenty Auxiliary members and ten guests were present. About sixty enjoyed the fine dinner. After introduction of visitors and guests, among them Dr. and Mrs. Willard Ellsworth, formerly of New York City and now located at Cainsville, Missouri, the Auxiliary retired to their meeting, and the scientific program was presented.

The speakers were Drs. Paul Scheele, Charles Kromer and James P. Murphy, from the St. Louis University Medical School, St. Louis, who discussed "Bedside Diagnosis and Treatment of the Arrhythmias." This was an interesting presentation followed by discussion and questions.

The minutes of the last meeting were read and approved.

This being time for the annual election, President Watkins A. Broyles appointed an Election Committee, Drs. Donald M. Dowell, John H. Platz and E. A. Duffy. After their report, it was with a unanimous vote that the following officers were elected for 1956: President, Dr. Charles M. Grace, Chillicothe, and Secident, Dr. Frank R. Daley, Hamilton; 2nd Vice President Dr. Charles M. Grace, Chillicothe, and Secretary and Treasurer, Dr. E. A. Duffy, Trenton.

There being no further business, the meeting adjourned.

E. A. DUFFY, M.D., *Secretary*

Clay County Medical Society

The Clay County Medical Society held its Annual Clinical Conference at the Elms Hotel in Excelsior Springs on Thursday, November 3.

The conference got underway with a noon luncheon at which Dr. Roscoe Pullen, Dean of the School of Medical, University of Missouri, spoke on "The University of Missouri Medical School."

Dr. Pullen showed slides to indicate the progress on the new medical school building program. He also mentioned additions to the new hospital faculty and discussed briefly the present set-up at the medical school for training of medical students.

The conference opened with a luncheon meeting.

Missouri speakers giving clinical talks on the afternoon program of the Conference were: Dr. Victor B. Buhler, Kansas City, President of the Missouri State Medical Association, "Presentation of Pathological Specimens," and Dr. Robert L. Jackson, Professor and Chairman, Department of Pediatrics, School of Medicine, University of Missouri, Columbia, "Common Pediatric Problems."

Speakers were seated at a head table.

The Conference dinner in the evening was attended by some 100 doctors and their wives who were privileged to hear a discussion on "Highlights of Medical Civil Defense Planning and Requirements."

Discussions were not limited to sessions.

Taking part in this discussion were Dr. Carroll P. Hungate, Kansas City, Chairman, Committee on Civil Defense, Missouri State Medical Association, and Dr. Curtis H. Lohr, Clayton, Superintendent and Medical Director of St. Louis County Hospital.

As a part of this discussion, Dr. Lohr explained the plan that has been worked out for evacuating patients and personnel from the St. Louis County Hospital westward into rural St. Louis County in view

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of bombing attacks in case of war. He then showed movies of a test run on such an evacuation.

This was a most interesting presentation and a highlight of the Clinical Conference.

The Woman's Auxiliary of the Clay County Medical Society acted as hostesses to the wives of the doctors who attended the Conference.

A full program was arranged for the ladies during the afternoon and then both doctors and wives attended the evening banquet and program.

Some eighty-five physicians registered for the Conference.

S. R. McCracken, M.D., *Secretary*

SECOND COUNCILOR DISTRICT

W. F. FRANCKA, HANNIBAL, COUNCILOR

Pike County Medical Society

A meeting of the Pike County Medical Society was held on Tuesday night, November 22, at the Pike County Hospital, Louisiana.

Guests present at the meeting were Dr. W. F. Francka, Hannibal, Councilor of the Second District, Missouri State Medical Association; Dr. B. L. Murphy, Hannibal, and Ray McIntyre, Field Secretary of the Missouri State Medical Association.

Those present posed for group picture.

A number of matters affecting the practice of medicine were discussed at the meeting.

Eight members of the medical society were in attendance in addition to the three guests.

J. W. Middleton, M.D., *Secretary*

Chariton-Macon-Monroe-Randolph County Medical Society

A dinner meeting of the Chariton-Macon-Monroe-Randolph County Medical Society was held at the Woodland Hospital in Moberly on Thursday night, November 10.

Dr. Spencer L. Freeman, of Kirksville, gave the principle address of the evening and spoke on "Ophthalmology for the General Practitioner." He effectively illustrated many pathologic conditions of the eye with colored slides.

County Society officers for 1956 were elected at this meeting and are as follows: President, Dr. C. C. Cohrs, Moberly; Vice President, Dr. Daniel D. Stuart, Brunswick, and Secretary and Treasurer, Dr. R. H. Young, Moberly.

Sixteen doctors attended this meeting.

W. D. Chute, M.D., *Secretary*

FOURTH COUNCILOR DISTRICT

JOSEPH C. CREECH, TROY, COUNCILOR

Jefferson County Medical Society

A luncheon meeting of the Jefferson County Medical Society was held Tuesday noon, November 1, at the Harman House, just north of Crystal City and Festus on U. S. Highways 61 and 67.

Dr. Thomas Thale, St. Louis, Chairman, Committee on Mental Health, Missouri State Medical Association, and staff member of St. Louis State Hospital, discussed plans for mobile psychiatric clinics for this area as called for in legislation passed by the Missouri assembly last spring.

J. F. Rutledge, M.D., *Secretary*

Franklin-Gasconade-Warren County Medical Society

A luncheon meeting of the Franklin-Gasconade-Warren County Medical Society was held at the St. Francis Hospital in Washington, on Tuesday, November 29.

Twenty-five members and guests were present to hear the Honorable Clarence Cannon, Congressman from the 9th Missouri District, discuss "Medical Legislation on the National Level."

Congressman Cannon was the speaker.

Mr. Cannon said that, from a recent trip to England, he found many people with whom he talked unhappy over the socialized medicine program in that country. He further said that, in his opinion, it is unlikely that such a program will ever be adopted in this country.

He discussed the tremendous expenditures by the Federal government today and the need for balancing the budget. Among these expenditures, he talked about large sums of money being spent by the Federal government in the various fields of medical research.

He pointed out that Federal spending needs to be cut down to what can be afforded from the stand-

Are You You?

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Close attention was held by the speaker.

point of paying for as we go along. He brought out an interesting point by stating that rarely did he ever receive from any of his constituents a letter suggesting cutting down of Federal expenditures but, on the other hand, he did receive many letters requesting something calling for the expenditure of more Federal funds.

H. D. Steinbeck, M.D., *Secretary*

FIFTH COUNCILOR DISTRICT

J. LOREN WASHBURN, VERSAILLES, COUNCILOR

Audrain County Medical Society

A dinner meeting of the Audrain County Medical Society was held in the cafeteria of the County Hospital at Mexico on Monday night, November 21.

The scientific program for the evening, under the auspices of the Missouri Academy of General Practice, was presented by C. M. Waggoner, M.D., roentgenologist, Columbia, who discussed "Clinical Evaluation of X-ray Therapy."

Following the scientific program, a number of business matters were discussed.

The Society voted to assist in anyway they could to help carry out the extended polio vaccine program in the State of Missouri.

The following doctors attended the meeting: Harry F. O'Brien, M.D.; Ben Jolly, M.D.; Glen Kallenbach, M.D.; Henry J. Ector, M.D.; Leonard Davis, M.D.; Charles Garcia, M.D.; J. Frank Jolley, M.D.; Thomas L. Dwyer, M.D.; Harold Lankford, M.D., and James Moss, Administrator, Audrain County Hospital.

The meeting adjourned at 10:00 p.m.

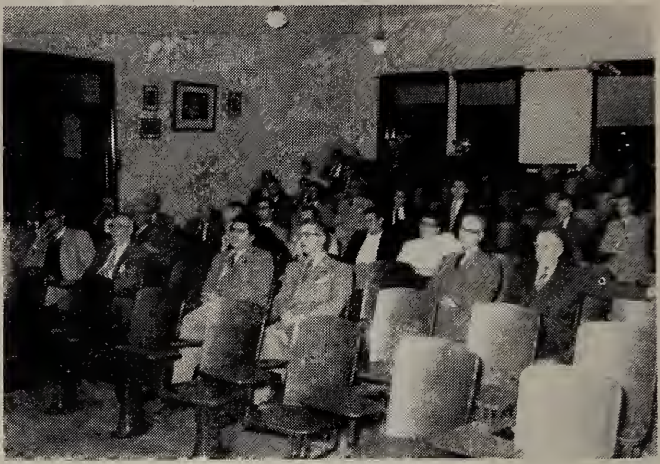
T. L. Dwyer, M.D., *Secretary*

Postgraduate Course at Missouri University

Thirty-seven physicians attended the first of a series of Postgraduate Medical Education Meeting to be held at the University of Missouri this fall and winter under the joint sponsorship of the University of Missouri Medical School and the Missouri Academy of General Practice.

The program for this meeting was presented by Dr. Walter J. Burdette, Professor of Surgery, and Dr. Samuel P. W. Black, Associate Professor of Surgery of the University. Dr. Burdette discussed "Management of Chest Trauma," and Dr. Black spoke on "Management of Acute Head Injuries."

Members of the Missouri Academy of General Practice who attended this meeting received two hours of category one postgraduate credit toward their Academy requirements.



The Academy held its first meeting of the year at Columbia.

J. Loren Washburn, M.D., *Secretary*

SIXTH COUNCILOR DISTRICT

C. G. STAUFFACHER, SEDALIA, COUNCILOR

Henry, Johnson, Pettis, Saline and Adjacent County Medical Societies

Sixty-six people, including doctors, their wives and guests, attended a joint dinner meeting of the Henry, Johnson, Pettis, Saline and adjacent County Medical Societies, Wednesday night, November 16, at the Pacific Cafe in Sedalia.

An enjoyable social hour preceded the dinner and program.

The scientific presentation of the evening was given by Dr. Robert Jackson, Professor of Pediatrics and Head of the Department, at the University of Missouri Medical School in Columbia.

He spoke on "The General Medical Supervision of a Healthy Child." He slanted a part of his talk toward

Dinner preceded the scientific program.

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Anti-inflammatory—
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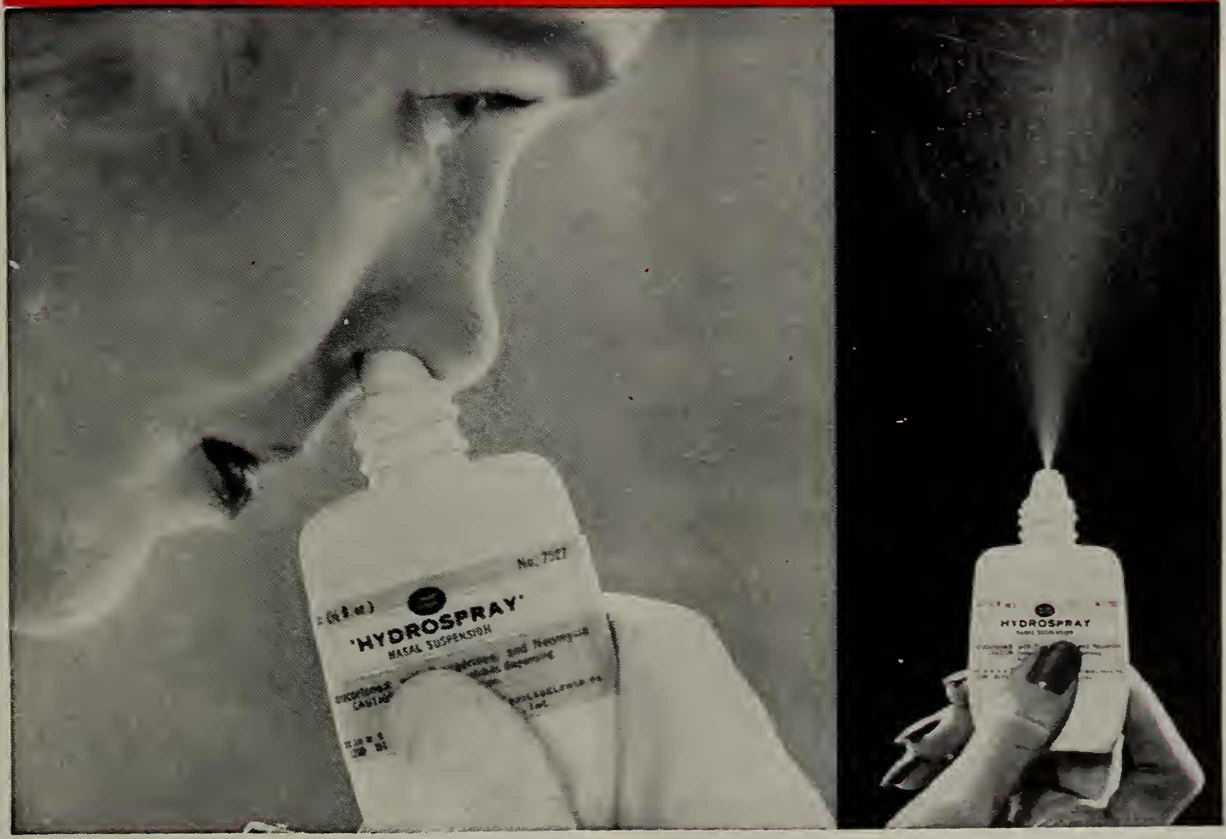
MAJOR ADVANTAGES: New synergistic anti-inflammatory, decongestant and antibacterial formula. High steroid content assures effective response.



Topically applied hydrocortisone[1] in therapeutic concentrations has been shown to afford a significant degree of subjective and objective improvement in a high percentage of patients suffering from various types of rhinitis. HYDROSPRAY provides HYDROCORTONE in a concentration of 0.1% plus a safe but potent decongestant, PROPADRINE, and a wide-spectrum antibiotic, Neomycin, with low sensitization potential. This combination provides a three-fold attack on the physiologic and pathologic manifestations of nasal allergies which results in a degree of relief that is often greater and achieved faster than when any one of these agents is employed alone.
INDICATIONS: Acute and chronic rhinitis, vasomotor rhinitis, perennial rhinitis and polyposis.

SUPPLIED: In squeezable plastic spray bottles containing 15 cc. HYDROSPRAY, each cc. supplying 1 mg. of HYDROCORTONE, 15 mg. of PROPADRINE Hydrochloride and 5 mg. of Neomycin Sulfate (equivalent to 3.5 mg. of neomycin base).

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REFERENCE: 1. Silcox, L. E., *A.M.A. Arch. Otolaryng.* 60:431, Oct. 1954.

the lay membership of his audience and the remainder toward the physicians present.

Following Dr. Jackson's well-received talk, all those in attendance were privileged to hear a discussion by Mr. Esser, a jeweler of Marshall, speak on the subject "Valuable Gems." In addition to his talk, he showed various types of such gems.

The meeting was well attended.

This fine two phased program made a well-spent evening.

Ray Hollingsworth, M.D.,
Chairman for the meeting,
Henry County Medical Society

West Central Missouri Medical Society

A "get together" of the members of the West Central Missouri Medical Society, with the dentists and lawyers of the five counties composing the Society was held at the Country Club in Nevada on Thursday night, November 10, with thirty-eight present.

Lawyers and dentists were guests at the meeting.

After an enjoyable social hour and consumption of a swell steak dinner, those present were privileged to hear Judge John H. Flanigan of Carthage speak on "Moments With the Masters."

In his talk, the Judge read many interesting passages from English prose and poetry. He finished his splendid performance by reading a speech which was given by Dr. R. Emmett Kane of St. Louis before a meeting of the Missouri Bar a few years back.

Judge Flanigan was the speaker.

The occasion of this meeting presented a most practical opportunity for the promoting of friendships and good relationships among the three professions in the area.

A. L. Hansen, M.D., *Secretary*

EIGHTH COUNCILOR DISTRICT

W. S. SEWELL, SPRINGFIELD, COUNCILOR

Jasper County Medical Society

The Jasper County Medical Society held a dinner meeting at Kunzie's Kitchen, Carthage, on Tuesday night, November 8.

Dr. George J. L. Wulff, Jr., St. Louis, Associate Professor of Obstetrics and Gynecology at Washington University Medical School, was the guest speaker.

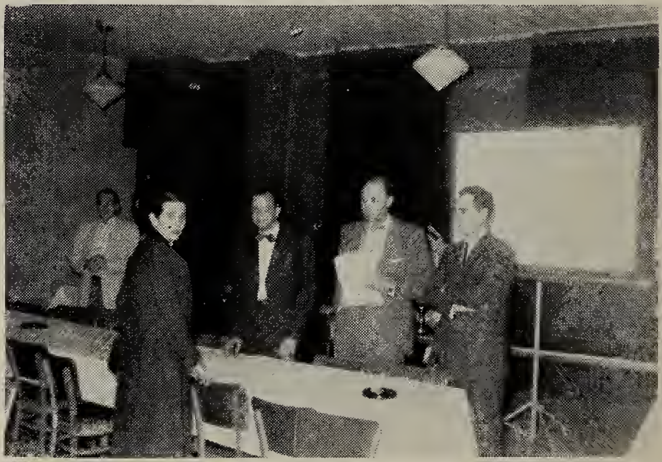
Dr. Wulff spoke on "Problems of Sterility and Related Matters."

Following a social hour and dinner, Dr. Wulff was introduced by Dr. John D. Maddox of Joplin, a long time friend.

L. S. Crispell, M.D., *Secretary*

Ozarks Medical Society

A smorgasbord dinner meeting of the Ozarks Medical Society and its ladies was held at the Bank


The Society's president talks with the speakers.

Planning the Low-Purine Diet for a long run...

Imagination is essential to this diet since your patient may have to follow it for many years. These diet "do's" can show him how to use eggs, cheese, and milk—a trio of almost purine-free foods—to supply the major portion of his protein.

In these, the trio plays a solo—

Eggs baked in pimiento-flecked cheese sauce are hard to resist. Or, if your patient prefers, the sauce can be poured over hard-cooked eggs.

A casserole of eggplant and tomatoes layered alternately with ricotta or cottage cheese makes a satisfying entree. Add a sprinkle of grated parmesan with a fine Italian hand.

Your patient may like his eggs poached in tomato juice. Then serve them in a soup bowl with a frill of chopped parsley on top.

In these, the trio plays accompaniment—

Ham 'n' egg rolls come hot or cold. For hot, roll a warm slice of ham around eggs that have been scrambled with a pinch of savory. For cold, roll ham around egg salad mixed with cottage cheese.

Oyster stew can be creamy without cream when the milk is bolstered with dry skim milk powder. A pinch of thyme and some chopped parsley add savor.

Broiled salmon or tuna-burgers nestle nicely in a nest of noodles. A slice of cheese on top adds color and broils to a bubbling brown.

These suggestions are only a few of the possible combinations of this versatile trio. And the adequate protein nutrition they make possible, plus a liberal intake of fluids, may help establish a regimen that will please you both.

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104 calories, 17 mg. sodium/8 oz. glass (Average of American beers)

If you'd like reprints of 12 different diets, please write United States Brewers Foundation, 535 Fifth Avenue, New York 17, N. Y.

Hotel in Aurora on Tuesday night, November 8. There were thirty-five doctors, wives and guests present.

Following dinner, the ladies adjourned to hold a separate meeting.

The scientific program presented to the physicians was in the form of a panel discussion on "Bedside Diagnosis and Treatment of the Arrhythmias."

The speakers had an attentive audience.

The physicians on the panel were: Drs. James G. Janney, John Meyers and Donald W. Bussman, all of St. Louis, and members of the Department of Cardiology of St. Louis University Medical School.

Members of the audience were requested by the panel to enter into the discussion at any time during the panel presentation.

This program was jointly sponsored by the Missouri Academy of General Practice and St. Louis University.

L. T. Taylor, M.D., *Secretary*

NINTH COUNCILOR DISTRICT

J. H. SUMMERS, LEBANON, COUNCILOR

Mid-Missouri Medical Society

Thirty-eight persons including doctors and their wives attended a meeting of the Mid-Missouri Medical Society in Rolla on Thursday night, November 17.

Following dinner, the ladies held a separate meeting and were privileged to hear an address by Mrs. Frank B. Leitz of Kansas City, President of the Woman's Auxiliary to the Missouri State Medical Association.

The doctors were treated to a fine panel discussion on "Peptic Ulcer" presented by C. Rollins Hanlon, M.D., Professor of Surgery and Director of the Department, St. Louis University Medical School; Sherwood Peartree, M.D., Assistant in Radiology, St. Louis University, and Edward D. Kinsella, M.D., Instructor in Internal Medicine, St. Louis University.

Members of the audience participated in the discussion which added to the interest value of the program.

M. K. Underwood, M.D., *Secretary*

TENTH COUNCILOR DISTRICT

BEN M. BULL, IRONTON, COUNCILOR

Dunklin, Pemiscot, Butler-Ripley-Wayne and the Semo County Medical Societies

A joint dinner meeting of the Dunklin, Pemiscot, Butler-Ripley-Wayne and Semo County Medical Societies was held Tuesday night, November 15, at the Cotton Boll Hotel in Kennett.

The evening festivities began with social refreshments, dinner and then the scientific program.

The twenty-five doctors attending the meeting were privileged to hear an interesting and informative panel discussion on "Bedside Diagnosis and Treatment of the Arrhythmias," by Drs. John Nuetzel, C. G. Vournas and John J. Ingley of the Cardiovascular Section of St. Louis University Medical School.

Discussion did not end with the formal meeting.

Speakers answered questions following the meeting.

In addition to the comments among the members of the panel, the audience participated in the discussion. The informality of the program added much to its value.

E. L. Spence, M.D., *Secretary*

Butler-Ripley-Wayne County Medical Society

The Butler-Ripley-Wayne County Medical Society and its Woman's Auxiliary held a dinner meeting

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PHYSICIANS CASUALTY AND HEALTH ASSOCIATIONS
OMAHA 2, NEBRASKA

at the Northwold Tourist Court Restaurant Tuesday night, October 18.

An interesting discussion on "Peptic Ulcers" was conducted by Dr. C. W. Gaskins, Chief Surgeon at the Poplar Bluff V. A. Hospital; Dr. A. L. May of the Lucy Lee Hospital staff, and Dr. Fred J. Biggs of the Doctors Hospital Staff.

A guest at the meeting was Dr. Warren A. Henkel, Chief Area Consultant for the Veterans Administration Surgical Service.

The meeting was well attended.

J. R. Loughead, M.D., *Secretary*

Correspondence

THE AMERICAN ACADEMY OF ALLERGY

208 E. Wisconsin Avenue
Milwaukee 2, Wisconsin
November 28, 1955

Mr. T. R. O'Brien, Executive Secretary
Missouri State Medical Association
634 North Grand Boulevard
St. Louis 3, Missouri

Dear Mr. O'Brien:

The American Academy of Allergy will hold its 12th Annual Meeting at the Chase Hotel, St. Louis, Missouri, February 6, 7 and 8, 1956. Preceding the Annual Meeting on February 4 and 5 a Pre-Convention Scientific Assembly will be held.

Panel discussions, scientific papers and exhibits covering all fields of Allergy will be presented at this meeting. All meetings are open to interested physicians. There is no registration fee.

On behalf of the entire membership of the American Academy of Allergy we want to send a sincere invitation to the officers, directors and members of the Missouri State Medical Association to attend any of the sessions of our Annual Meeting.

Sincerely yours,
Stanley F. Hampton, M.D.
President, The American Academy of Allergy.

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Washington, D.C., News

A.M.A. DELEGATES APPROVE OPPOSITION TO DISABILITY PAYMENTS

The program of alerting physicians to the implications of the House passed bill for disability cash payments at age 50 is being stepped up. The American Medical Association's Hospital of Delegates has given its approval to a program including the mailing to all AMA members of a letter from President Elmer Hess, plus a fact sheet on the Social Security amendments.

A Board of Trustees report on the amendments notes that AMA's concern is with two parts of the bill (H. R. 7225): extension of OASI benefits for totally and permanently disabled children beyond age 18, and provision of OASI retirement benefits for the disabled at age 50, instead of the present statutory requirement of age 65.

The board declared: "This bill clearly is another step in the extension of government over the medical profession." This is the way it would come about: By providing a disability benefit as a right through the OASI system, it would subject doctors to government regulations in making disability determinations and rendering rehabilitation services. In addition, "constant pressures from government, administrators and patients seeking disability certifications would cause increasing harassment of the . . . profession."

The board report then goes on to note that the bill's threat to the profession "is only significant if it conflicts with our ability to discharge our obligations to those we serve. It would classify and certify as hopeless many of those to whom adjustment to a new way of life offers the only hope of recovery and rehabilitation."

IMPROVEMENTS FORECAST IN ADMINSTRATION HEALTH PROPOSALS

Roswell Perkins, Assistant Secretary of the Department of Health, Education and Welfare, says the administration's health program for next year will contain revisions and improvements over the program submitted to Congress during the last session. Addressing the District of Columbia League of Republican Women on November 15, Mr. Perkins noted that 88 per cent of hospital beds in the United States are taken up by the chronically ill and that "we should plan ahead" in this field. He also declared: "While hearings were held on a few of these measures, most were given no consideration. Our program for next year, which is not finalized, will contain revisions and improvements in the total program. But the question will again be squarely presented as to whether this Congress will enact the bulk of the President's health program."

VA LAUNCHES NEW PROGRAM FOR LONG TERM PATIENTS

The Veterans Administration has begun what it describes as "an advanced concept in the care of chronically ill veterans" in thirty VA hospitals. The program will be expanded to other hospitals as rapidly as they qualify. Dr. William S. Middleton, VA medical chief, explained the program provides "active rather than custodial care for those long term patients in the VA hospital system who no longer need definitive hospital treatment, cannot return home, and lack the capabilities necessary for the new planned-living program in VA domiciliaries."

Dr. Middleton outlines these points in the newest program: (1) concentration of long term patients in special sections of hospitals, manned by specially qualified staffs, (2) for each patient, a planned maintenance rehabilitation to retain benefits of hospital care already given and to prevent development of any further disabilities, (3) section staff to gear a planned activity program to each patient's need for recreation and spiritual and social activities, and (4) periodic reviews of each patient's progress with the goal of eventual discharge.

VA estimates the average age of some 110,000 veterans in VA hospitals is 48, in comparison with 38 in the veteran population as a whole. Currently there are 584,000 veterans age 65, while five years from now this group is expected, by VA estimates, to exceed 1,780,000.

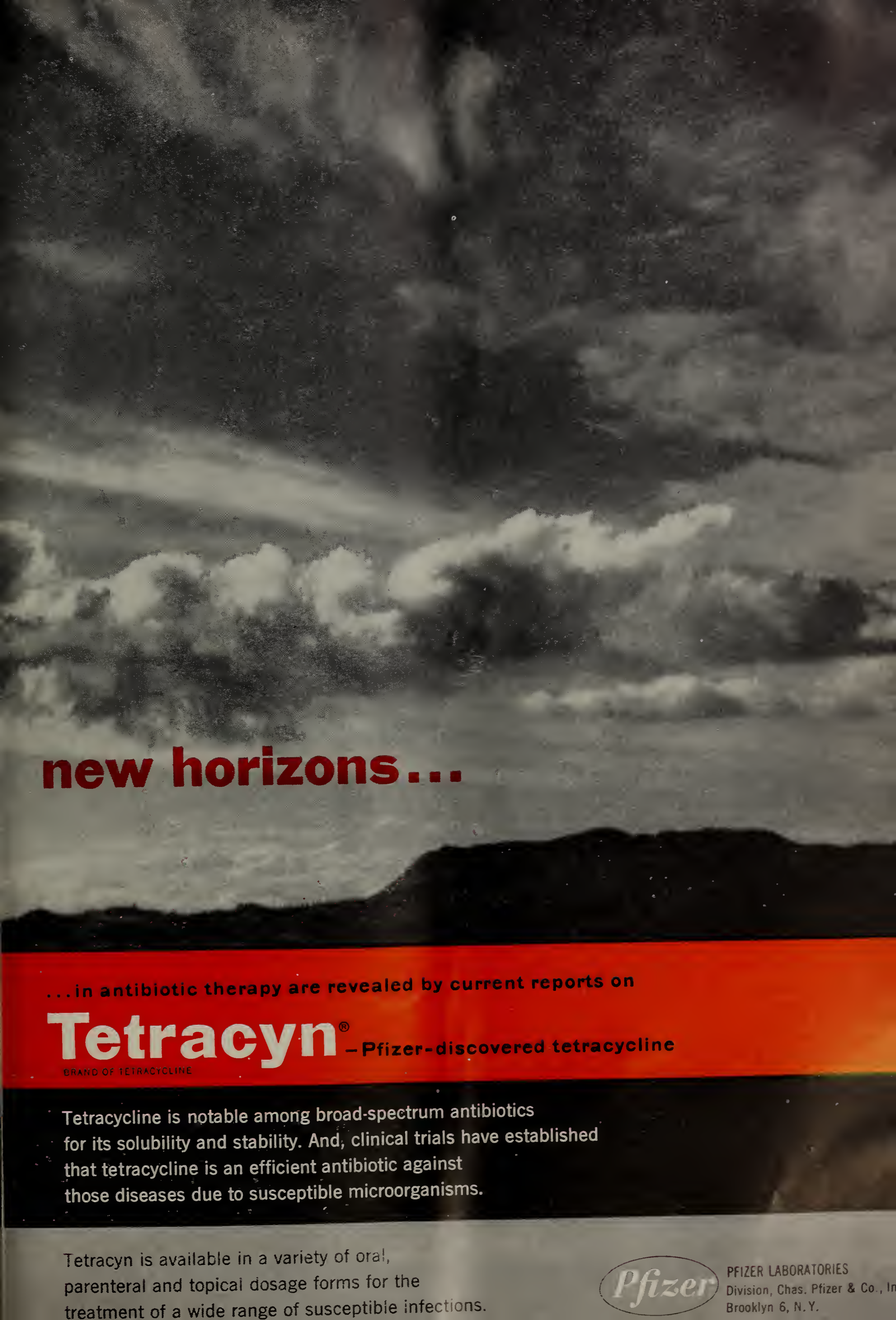
SALK VACCINE PRODUCTION TO INCREASE SOON

Lagging production of the Salk poliomyelitis vaccine should start picking up in December and reach normal production rate probably in February, Surgeon General Scheele predicted November 17. He blamed the recent drop in production on major changes made last May in vaccine production and testing, and on continuing refinements since then. Dr. Scheele made the estimates in submitting to HEW Secretary Marion Folsom an interim report of the Public Health Service's Technical Committee on Poliomyelitis Vaccine. The committee reported the following:

1. New filtration techniques remove clumps of virus particles which were large enough to shield some virus from the action of formaldehyde, and now expose all the virus to formaldehyde inactivation.
2. Monkey safety tests have been modified to increase sensitivity, and the monkey potency test has been revised so that it serves as an additional safety test. Points 1 and 2, along with continuous review of plant production records, assure the safety of released vaccine and should make more supplies available, according to the report.
3. Vaccine properly made by the Mahoney strain, while especially virulent, provides "an entirely safe immunizing agent." Research is continuing in the hope of finding a less virulent strain.

THE DOCTOR DRAFT

Dr. Frank B. Berry, assistant Defense Secretary for Health and Medical matters, in his annual report warns that the doctor procurement problem again may become acute, despite last summer's two-year extension of the act. He said the Department may not be able to obtain all the older physicians it needs because of the amendment barring the drafting of men over 35 if they have applied for a medical commission and been rejected on purely physical grounds. Also, Dr. Berry thinks the ratio of 3 physicians per 1,000 of troops may be too narrow a margin for safety.



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News From the Medical Schools

WASHINGTON UNIVERSITY

Honors

Dr. William B. Kountz, assistant professor of clinical medicine at Washington University School of Medicine, was installed as president of the American Gerontological Society, October 28, in Baltimore, during the eighth annual meeting of the Society. Dr. Kountz, who was elected to the office at a meeting last December in Florida, will serve a one year term.

Dr. Carl A. Moyer, Bixby professor of surgery and head of the department, recently was named to a five member advisory Committee on Research to the Veterans Administration. Dr. William S. Middleton, VA chief medical director, said the committee will "be concerned particularly with the professional and administrative aspects of research activities conducted with VA stations and with the research activities conducted by VA employees."

Dr. John R. Smith, associate professor of medicine and director of medical service at Homer G. Phillips Hospital, has been elected president of the St. Louis Heart Association.

Dr. M. Hayward Post, professor emeritus of clinical ophthalmology, recently was elected first vice president of the American Academy of Ophthalmology and Otolaryngology at a Chicago meeting. He will serve a one year term.

Grants

A total of $366,282 in research grants has been awarded to Washington University School of Medicine by the United States Public Health Service, Dean Oliver H. Lowry announced recently. Of this amount, $94,549 provides for new grants, with the remainder for continuation of grants previously received by faculty members at the medical school. New grants were received by Dr. Charles Eckert, associate professor of surgery and director of the division of tumor services, $21,509; Dr. Arthur Kornberg, professor of microbiology and head of the department, $18,975; Dr. William M. Landau, assistant professor of neurology, and Dr. Robert B. King, assistant professor of neurosurgery and Markle fellow in neurosurgery, $17,782; Dr. Robert Elman, professor of clinical surgery, and Dr. T. E. Weichselbaum, assistant professor of experimental surgery, $16,732; Dr. David S. Hogness, instructor in microbiology, $9,754; Dr. King, $7,561; and Dr. Lawrence W. O'Neal, assistant in clinical surgery, $2,236.

Dr. Martin Kamen, associate professor of radiochemistry, has received a five year, $32,500 grant from the National Science Foundation for work on "Photo-Activation and Electron Transfer in Bacteria."

A grant of $13,612 has been awarded by the Muscular Dystrophy Associations of America to Dr. Amoz I. Chernoff, assistant professor of medicine. He will work on the abnormalities of myoglobin in muscular dystrophies and the hereditary hemolytic syndrome and their relationships to the disease. The grant, which covers one year, began November 1.

Lectures, Meetings

Dr. Nathan A. Womack, professor of surgery and head of the department at the University of North Carolina, Chapel Hill, delivered the seventh annual Major G. Seelig lecture November 23 at the medical school. He spoke on "Chronic Cystic Mastitis and Its Relation to Cancer." Dr. Womack, a medical graduate of Washington University, is well known for his work in surgical pathology. Of special note are his contributions to the pathology of the tumors of the lung and to the field of cancer in general. The lecture honors the late Dr. Seelig who was professor of clinical surgery at the medical school and director of research at Barnard Free Skin and Cancer Hospital for many years.

Four research papers were presented at a meeting of the Washington University Medical Society on December 8. The papers were: "Enzyme Activity of Burned and Normal Skin," by Dr. Falls B. Hershey, assistant professor of surgery, and Barry M. Kayes, research assistant in surgery; "The Effect of Growth Hormone on the Uptake of S^{35}-Sulfate by Cartilage," by Dr. William H. Daughaday, assistant professor of medicine; Dr. William R. Murphy, assistant in pathology; and Carolyn Hartnett, research assistant in medicine; "Renal Juxtaglomerular Cells, Electrolyte Balance and the Adrenal Cortex," by Dr. Phyllis Hartroft, research assistant in pathology; and Dr. W. Stanley Hartroft, Mallinckrodt professor of pathology and head of the department; and "E. coli Diarrhea: The Relationship of Certain Serotypes of Escherichia coli to Sporadic and Epidemic Cases of Infantile Gastroenteritis," by Dr. John C. Herweg, assistant professor of pediatrics and assistant dean of the school of medicine; Dr. J. Neal Middelkamp, instructor in pediatrics; and Dr. Helen Thornton, research fellow in bacteriology in pediatrics.

Twenty-two faculty members of Washington University School of Medicine participated in the various panels, symposia, television, cine clinics and postgraduate courses at the 41st annual clinical congress of the American College of Surgeons held October 31 to November 4 in Chicago. Participants were: Drs. Carl A. Moyer, Lauren V. Ackerman, Eugene M. Bricker, Willard M. Allen, Minot P. Fryer, Louis T. Byars, Evarts A. Graham, Harvey R. Butcher, Jr., James Barrett Brown, Henry R. McCarroll, William Sleator, James Chamness, Falls B. Hershey, Harry C. Morgan, Maurice J. Jurkiewicz, Richard P. Andrews, Charles Eckert, T. E. Weichselbaum, Harry W. Margraf, Joseph C. Penden, Jr., Tillman M. Moore and Lawrence W. O'Neal.

Three staff members presented papers at the 28th annual meeting of the Central Society for Clinical Research held November 4 and 5 in Chicago. Participants were: Dr. Phillip Comens, fellow in medicine; Dr. Lillian Recant, assistant professor of medicine and of preventive medicine; and Dr. Seymour Reichlin, instructor in medicine and Lowell M. Palmer senior fellow in neuropsychiatry. About forty house staff members of the department of medicine also attended the meeting.

Dr. Justin J. Cordonnier, professor of urology, participated in a panel discussion on "Urinary Diversion" at the annual meeting of the South Central Branch of the American Urological Association held October 17 to 20 in Dallas.

Dr. Edmund V. Cowdry, professor emeritus and lecturer in anatomy and director of the Wernse Laboratory of Cancer Research, recently has given lectures at the University of Toronto, the meeting of the Southern Society of Cancer Cytology held in Houston, the American Public Health Association meeting at Kansas City and the University of Kansas. He also has attended scientific committee meetings at Miami, Fla., and Duarte, Calif.

Dean Oliver H. Lowry; Dr. Robert Glaser, associate dean, and W. Bahlmann Parker, registrar, represented the medical school at the 66th annual meeting of the Association of American Medical Colleges held October 24 to 26 in Swampscott, Mass.

Examination

The American Board of Surgery examination Part I for certification was held October 26 at the medical school. There were eleven candidates from Missouri and Illinois. The second part of the examination was held December 12 and 13 at the medical school.

Visitors

Dr. Erik Lindgren, professor of radiology at the Serafimerlasarettet Hospital in Stockholm, Sweden, spoke on "Neuroradiology" November 15 at the medical school. The lecture was sponsored by the departments of radiology, neurosurgery and neurology. In addition to his academic position Dr. Lindgren is editor of the Swedish radiological journal, *Acta Radiologica,* and the author of a recent textbook on radiology. He is in the United States on a lecture tour. Another recent visitor and speaker was Dr. Salvador Zubiran, Mexico City, who spoke to the house staff of the department of medicine November 17 on "The Role of Stress in the Ulcer Problem." Dr. Mitsuteru Ishikawa, professor at the Tokyo Jikeikai School of Medicine, visited members of the faculty November 21. Dr. Ishikawa, who studied in the department of bacteriology at the medical school from 1926 to 1928, is working on allergy, immunity and related subjects. Dr. Herman Kalckar, of the National Institute of Health, Bethesda, gave a biochemistry seminar and a speech for the department of pediatrics recently. A recent guest from the Institute of Nutrition of Central America and Panama, located at Guatemala City, was Dr. Guillermo Arroyave who visited with Dr. Martin Kamen, of the department of radiology, and other staff members.

Mr. John Hutchison, a surgeon at the University of Glasgow, Scotland, visited in the department of surgery for a week to observe new surgical methods.

UNIVERSITY OF MISSOURI

Trips and Talks

Dr. William A. Sodeman, professor and chairman of the department of medicine, addressed the Cooper County Teachers Association on October 17 at Boonville, regarding the topic "Medical School and Heart Disease." On November 10, Dr. Sodeman was in Toledo, Ohio, attending the St. Vincent's Hospital Centennial. At that time, Dr. Sodeman spoke on "Atherosclerosis." The Practical Nurses Association in Columbia heard Dr. Sodeman's talk entitled "Practical Nursing in Internal Medicine," on November 14. Then, on November 15, Dr. Sodeman was guest speaker at the Pettis County Health Forum in Sedalia where he spoke on "Nerve Pills and Sleeping Medicine."

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Staff members of the Department of Microbiology attended a meeting of the Eastern Missouri Branch of the Society of American Bacteriologists held in St. Louis on October 29. Dr. F. B. Engley, professor and chairman of the department, presented a paper at the meeting entitled "Evaluation of Antiseptic Toxicity in Tissue Culture." Dr. Herbert S. Goldberg, assistant professor of microbiology, traveled to Washington, D.C., for the Third Annual Antibiotic Symposium of the Department of Health, Education and Welfare, held November 1 to 5. Approximately one thousand were present. The Symposium was concerned primarily with two important points regarding antibiotics. More information was given on the increase in the number of toxic reactions to antibiotics and preliminary information was reported on new antibiotics. Dr. Engley, Dr. V. J. Cabelli, Dr. R. Keller and Dean R. L. Pullen attended a meeting of the American Public Health Association in Kansas City on November 14 to 18.

Dr. Clarence D. Davis, professor and chairman of the department of obstetrics and gynecology, participated in a panel entitled "Cancer of the Cervix and Uterus" as part of the activities of the Missouri Academy of General Practice at a recent meeting in Jefferson City.

On October 31, Dr. E. T. Standley, assistant professor of pathology, delivered a talk entitled "Recent Advances in Clinical Pathology" to the University Hospitals staff nurses in connection with the education program being conducted for them.

Dr. Robert L. Jackson, professor and chairman of the department of pediatrics, delivered a lecture on "Common Pediatric Problems" as part of the Clinical Conference sponsored by the Clay County Medical Society held in Excelsior Springs on November 3. Dr. Jackson was guest speaker on November 7 at a series of meetings in Nebraska sponsored by the Lincoln General Hospital, the Education Division of the University of Nebraska, and the Lincoln Public Schools. Dr. Jackson spoke on the use of growth charts in school health programs and the evaluation of growth in children. On November 10, Dr. Jackson was in Camdenton at a meeting sponsored by the Missouri Heart Association. This was the second session in the postgraduate course on "Cardiology." Approximately fifty doctors heard Dr. Jackson's lecture on "Heart Failure in Children."

Dr. W. R. Hepner, Jr., associate professor of pediatrics, was one of nearly seven hundred who attended the annual meeting of the Central Society for Clinical Research held in Chicago, November 3 to 6. Reports on recent advances in biological research were given and regular business was conducted.

Dr. Clement E. Brooke, of the department of pediatrics, continues with a joint program in cooperation with the University of Kansas whereby clinical students from the School of Medicine of the University of Missouri travel to Children's Mercy Hospital in Kansas City to make rounds with the staff and students from the University of Kansas.

Dr. Walter J. Burdette, professor and chairman of the department of surgery, attended the annual meeting of the American College of Surgeons held in Chicago, November 3 to 5. On November 12 Dr. Burdette delivered a talk entitled "Studies on Intermediary Metabolism of Cardiac Muscle" at a meeting sponsored by the Society of Clinical Surgery held in New Orleans. At the same time, the Louisiana Division of the American Cancer Society presented him with a scroll bearing a resolution of appreciation and commendation for his work as chairman of the executive committee and vice president of the Louisiana Division of the American Cancer Society from 1949 to 1955.

Dean Roscoe L. Pullen and Miss Dorothy L. Vorhies, associate professor of dietetics, apprised a group of home economists of the progress of the University of Missouri School of Medicine and University Hospital, in connection with Agriculture Forum Day held at the University on October 31. Dr. Pullen was also guest speaker at the Clay County Medical Society Clinical Conference in Excelsior Springs on November 3.

As part of the Capping Exercises held on November 6 in Jesse Auditorium at the University of Missouri, Dr. Pullen delivered an address entitled "Nursing in Modern Society." Twenty-eight nurses received their caps from Mrs. Katherine A. Mason, assistant director of the School of Nursing, at this colorful ceremony.

Dr. Pullen continued his attempts to apprise interested persons of the progress of the School of Medicine at a meeting of Pi Lambda Theta, Christian College, held on November 10.

Postgraduate Activities

Postgraduate medical education programs are well underway, with enthusiastic participation and gratifying attendance. On October 19, Dr. William T. Ellis, assistant professor of obstetrics and gynecology, and Dr. Samuel P. W. Black, associate professor of surgery, were guest speakers on the program in Springfield, sponsored by the University of Missouri School of Medicine and the Greene County Medical Society. Dr. Ellis spoke on "Management of Hypertensive Disorders of Pregnancy" and "Diabetes in Pregnancy." Dr. Black's topics were "Management of Acute Head Injuries" and "Pain in the Lower Back." Drs. Ellis and Black also delivered these lectures the following evening in Joplin, under the joint sponsorship of the School of Medicine and the Jasper County Medical Society.

Dr. Thomas W. Burns, assistant professor of medicine, and Dr. Walter R. Hepner, Jr., associate professor of pediatrics, presented the program for November. Dr. Burns delivered lectures entitled "Diagnosis and Management of Rheumatic Fever in Adults" and "The Use and Abuse of Thyroid and Anti-Thyroid Agents." Dr. Hepner presented ideas on the management of difficulties in the newborn child. His second lecture dealt with the management of diarrhea and vomiting.

In addition to these programs being held in Joplin and Springfield, the School of Medicine is also presenting a series of meetings in Columbia, sponsored by the Missouri Academy of General Practice. The first such meeting was held on November 17 with Dr. Walter J. Burdette, professor and chairman of the department of surgery, and Dr. Samuel Black presenting two lectures on the management of chest trauma and acute head injuries.

Appointments

Dr. Gwilym S. Lodwick, associate professor of Radiology, State University of Iowa College of Medicine, has been appointed professor and chairman of the department of radiology at the University of

Missouri School of Medicine, effective July 1, 1956. Doctor Lodwick, a native of Mystic, Iowa, received his medical and postgraduate training in radiology at the University of Iowa. Doctor Milton E. Kirkpatrick, executive director of the Greater Kansas City Mental Health Foundation, has been appointed clinical associate in medicine (psychiatry). Doctor Kirkpatrick will give biweekly lectures in child psychiatry and child guidance to the medical students.

Doctor Barbara Randall of Columbia has been appointed instructor in physical medicine. Doctor Randall received a Master's degree in physiology (physical medicine) at the University of Iowa and formerly taught at Ohio State University before coming to the University of Missouri.

Doctor Constantine Anast, currently instructor in pediatrics, State University of New York College of Medicine at Syracuse, has been appointed instructor in pediatrics effective February 1, 1956.

Grants

Dr. L. E. Thomas, associate professor of biochemistry, is the recipient of a grant for cancer study in the amount of $5956.53 from the United States Public Health Service. This grant is a renewal for study he has made for over five years on the subject "Isolation of Characterization of Cellular Proteins."

The United States Public Health Service has renewed the undergraduate cancer teaching grant of $25,000 for the year beginning January 1, 1956. The grant will be administered under the direction of Dr. Joseph E. Flynn, professor and chairman of the department of pathology and cancer coordinator for the School of Medicine.

Honors

Doctor Clarence D. Davis, professor and chairman of the department of obstetrics and gynecology, and Doctor Samuel P. W. Black, associate professor of surgery, were initiated into the American College of Surgeons at the meeting held in Chicago, November 3 to 5.

Doctor Edward L. Washington, clinical associate in pediatrics, was a recent initiate into the American Academy of Pediatrics.

Lectureships

The University of Missouri School of Medicine was honored to have Dr. Harry E. Morton, professor of bacteriology at the University of Pennsylvania School of Medicine, as a guest lecturer on November 18. Dr. Morton addressed members of the faculty and student body on the subject "Pleuropneumonia-like Organisms."

Dr. John Adriani, director of the department of anesthesia, Charity Hospital of Louisiana, New Orleans, addressed a general assembly of the faculty and student body on October 8 on the subject of "New Drugs."

SAINT LOUIS UNIVERSITY

Dr. Ralph A. Kinsella, Senior, Professor of Internal Medicine and Director Emeritus of the Department, Saint Louis University School of Medicine, was

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awarded one of the University's first Alumni Merit Awards at the Student Convocation held November 15 which opened the University's two day Founders' Day Celebration. The awards were presented to twelve graduates of the University representing various schools. The event marked the 137th anniversary of the founding of Saint Louis University.

The Very Rev. Paul C. Reinert, S.J., President, presented Dr. Kinsella the award which read in part: He qualifies par excellence as an exemplar of our President's definition of a "distinguished Alumnus" of Saint Louis University. His three degrees—the Bachelor's, the Master's, and the Doctor's—were all earned in Saint Louis University in 1906, 1910 and 1911, respectively. For thirty-one years, he guided the Department of Internal Medicine as teacher and administrator. Except for his prehigh school life, the ten years of his absence from Saint Louis University for advanced study, and service in three other faculties of Medicine, and the three years of his Army service, he spent forty-one years of his life in Saint Louis University.

Dr. Kinsella receives award

As a scientist, he was ever the uncompromising lover of the stark truth; as an investigator, he opened many of nature's jealously guarded secrets concerning endocarditis, rheumatic fever, and the cellular mechanisms of infection; as an author some of the most distinguished monographs in world widely known compilations and published numerous papers on his research. He has received every honor which his profession in our country could bring to him as a physician and internist.

Dr. Edmond F. Sassin, assistant professor of clinical neurology and psychiatry, was the discussion leader at a two day Work Shop held at the National Conference of Catholic Charities held at Grand Rapids, Michigan, November 7 and 8.

Dr. Grayson Carroll, associate professor of clinical urology, gave a series of lectures on "Cancer of the Prostate" at Duke University and the Veterans Administration Hospital in Durham, North Carolina on November 4 and 5. Dr. Carroll was also the guest speaker at the Iowa Urological Society in Iowa City, Iowa, on December 10.

Dr. Jack R. Eidelman, senior instructor in neurology and psychiatry, lectured on "The New Drugs in Psychiatry and Their Practical Applications" at Veterans Hospital in Muskogee, Oklahoma, November 18.

Dr. Otakar Machek, instructor in orthopedic surgery, took part in a panel discussion at the Missouri State Nursing and Allied Homes Association Meeting held at the Hotel Jefferson December 13. His discussion was titled, "Should Nursing Homes Attempt Rehabilitation."

BOOK REVIEW

Fifty Years of Medicine, by Lord Horder. Philosophical Library, New York. 1954. Price $2.50.

This little volume consists of the Harben Lectures delivered before the Royal Institute of Public Health and Hygiene. It is to some extent autobiographic in nature. He describes briefly the advances in clinical pathology, chemotherapy, surgery, x-ray, endocrinology, industrial medicine and nursing. He discusses with critical remarks some modern trends in social and psychosomatic medicine. He reviews the developments in the fields of nutrition and foods, and physical medicine and rehabilitation, especially in relation to Great Britain and the recent war. There is an amusing section on noise abatement.

One would suggest that the most interesting part of the book is his consideration of medicine and the state; illuminating statements of his views of the British National Health Service Act. Errors emphasized are precipitancy and attempting too much in too short a time. It was a blunder to base the new scheme primarily on the hospital and not on the family physician. Many hospitals were closed to general practitioners so he could no longer follow his patient into the wards, take part in the diagnosis and treatment while there, and resume effective care when the patient returns home. There is a segregation of the general practitioner from the specialist. In the process of developing the hospitals the Service has tended to accentuate this division of the profession into specialists and general practitioners. It would be dangerous if the intellectual contacts of the two branches of the profession were diminished. Much more "welfare" was embarked upon than the country could afford. The economic consideration of the work of the general practitioner is important. Every case which the doctor refers to the State hospital, when he could himself diagnosis and treat it, either in his office or at the patient's home, costs the country more money. Add to this the fact of the long waiting lists at the hospitals of both out and in patients, and the consequent absenteeism involved, and the expense of short circuiting the general practitioner and his normal function becomes obvious. The lowering of the status of the general practitioner has sapped this most important branch of practice of its spirit of initiative and adventure. Young physicians have therefore been attracted to the specialist and consultant branches, encouraged thereto still further by subsides and promises, to find later they were not needed. H. A. B.

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Curiosa et Trivia

William B. McCunniff, M.D.

The current price of 100,000 units of penicillin is less than 1 per cent of the cost in 1942. Procaine penicillin cost fifteen times as much in 1948 as it does now; and insulin is sold for about 10 per cent of its cost in 1923.

Because of complaints from French dentists, citizens returning from Belgium must have their dentures checked. If they are new, the proud possessor of the "store teeth" must pay a 35 per cent duty for importing the cheaper Belgian teeth.

One person in the United States goes blind every twenty-four minutes. The blind population of the United States is now approximately equal to that of Buffalo, New York.

Note to a pharmacist: ". . . will you send me a medicen for my stomach I have sour stomach and acidity after eating offle bad and send me two bottles alka seltzer and send my bill how much I owen. . . ."

Advertising manager and vice president of the Maiden Form Brassiere Company (". . . I dreamed I went . . . in my Maidenform Bra") is Dr. Joseph A. Coleman. After two years practice and five in the Army, E.N.T. man Coleman went into the lingerie business. Dr. Coleman also holds a half dozen patents in brassiere design.

About one half of professional boxers show urinary turbidity after a fight.

Almost within the shadow of a well known and great medical center in Cleveland, is another healing institution. Located at 10828 Carnegie is the Mayo Animal Clinic and Hospital.

Capsule Clinics

I. A. Wien, M.D.

- It appears that about 4 per cent of subjects with intracranial aneurysm have polycystic kidneys and about 15 per cent of those with polycystic kidneys have intracranial aneurysms. Hazard, J. B., and McCormack, L. J.: Med. Clin. North America 39 (July) 1955.

- Actually, there is little understanding of the exact physiology of the parathyroid hormone; however hyperphosphaturia with the resultant decrease in serum phosphate is the initial sign of hyperparathyroidism. Greenwood, J. H., et al: Med. Clin. North America 39 (July) 1955.

- Dihydrotachysterol(A.T. 10) mimics the action of parathyroid hormone in causing a rise in the serum calcium. It is one of our best drugs, for the patient apparently does not build up a tolerance against it. Greenwood, J. H., et al: Med. Clin. North America 39 (July) 1955.

- Protection against hyperthermia is very effectively accomplished by two mechanisms—peripheral vasodilation and active sweat secretion. Major physiologic adaptations resulting in an improved ability to work during the early days of acclimatization to heat are probably cardiovascular in nature. The kidney "conserves" sodium and chloride in excess of amounts required to compensate for sweat losses, with the result that plasma and interstitial fluid volumes are "isotonically" expanded. Bass, D. E., et al.: Medicine 34 (September) 1955.

- In 520 cases of hyperthyroidism treated with I-131 over a ten year experience, 75 per cent responded to a single dose, no true recurrence of hyperthyroidism has been observed, and no cancer of the thyroid attributable to radioactive iodine has been demonstrated. Chapman, E. M., and Maloof, F.: Medicine 34 (September) 1955.

- Neoplastic disease of the heart is seldom recognized even though it is not longer considered unusual. Myxomas make up 50 per cent of the primary tumors of the heart and 75 per cent of them are located in the left atrium. Hurst, J. W., and Cooper, H. R.: Am. Heart J. 50 (November) 1955.

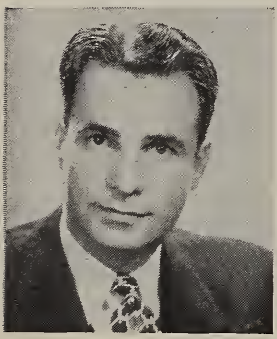
- Diamox can exert a powerful effect in lowering intra-ocular pressure. It is particularly valuable in cases of secondary and congestive glaucoma; however in chronic glaucoma its effect is only temporary. Drance, S. M.: Brit. J. Ophth. 24 (November) 1955.

Missouri Medicine in Review

LEO H. POLLOCK, M.D.

FORTY YEARS AGO

Suit against the board of education of St. Louis has been filed in the circuit court by several citizens, among them three physicians, one of whom was recently expelled from membership in the St. Louis Medical Society. The instigators of the suit are seeking to restrain the board of education from using the school funds to maintain the department of hygiene which conducts the medical examination of school children. The petition alleges such use of the school funds is not sanctioned by law.



Dr. J. Shelton Horsley, Richmond, Virginia, was the guest of the St. Louis Medical Society, January 2, and read a paper on "Blood-Vessel Surgery."

S. C. Young, a chiropractor at Cape Girardeau, was fined $50 for practicing medicine without a license, January 17. The deposition of a licensed practitioner now deceased was read in court stating that Young was working for the physician.

Grundy County Medical Society has secured quarters in the board of directors' room of the Trenton Trust Co. for their regular meetings. The members are proud of their new meeting place, as it is steam heated, electric lighted and altogether very attractive.

Dr. David R. Hill, Commissioner of Health of Joplin, has consented to stand for reelection under the commission form of government which Joplin adopted a year ago.

Dr. Julius Rotter, formerly of Parsons, Kansas, was recently convicted of wife abandonment in St. Louis and sentenced to six months in the workhouse. The publicity given the occurrence has caused Dr. Julius Charles Rotter, St. Louis, considerable embarrassment on account of the similarity of names. Dr. Julius Charles Rotter is a member of the St. Louis Medical Society and in no way related to the convicted man.

Dr. James R. Smith, Warsaw, secretary of Benton County Medical Society, was so unfortunate as to lose his office and contents during a fire December 23. Unfortunately no insurance had been placed on the doctor's possessions, and he is now sorely in need of office furniture, operating table and cases.

The wife of Dr. William Harrison, Marshall, died December 15. Mrs. Harrison was a daughter of the late Col. Vincent Marmaduke and granddaughter of former Governor M. M. Marmaduke.

Dr. W. D. Fulkerson, Trenton, has been confined to his home with a severe attack of erysipelas, but is better now and will be out in a short time.

TWENTY-FIVE YEARS AGO

The business corporation that would encroach on individual practice comes before the physician often and came before the St. Louis Medical Society in the form of a proposition by a company organized to furnish medical, surgical and roentgen ray service to policy holders for one half the usual charge, the policy holder to pay the sum of 15 cents a week for this cheap medical service and in addition at his death receive "a swell $300 funeral." The promoters evidently believed physicians would grab at the chance of having "5,000 families allotted to them," which was the bait dangled before them. No member of the society was inveigled into the scheme.

There are approximately 143,000 physicians in the United States and about 32,000 other practitioners who care for the sick.

Dr. O. E. Kiessling, Washington, D. C., has been appointed chief economist and W. W. Adams chief statistician of the newly created demographical division of the United States Bureau of Mines, Department of Commerce. Their duties will be to conduct statistical studies relative to the health, safety and welfare of persons employed in mineral and related industries.

The New York Polyclinic Medical School and Hospital, New York City, dedicated a new twelve story addition to the institution December 29, 1930. The addition was constructed at a cost of $1,500,000 and will provide more space for clinics, teaching, private rooms and operating rooms.

Dr. Charles E. Hyndman, St. Louis, was installed as president of the St. Louis Medical Society, January 6, 1931.

Dr. Edward H. Skinner, Kansas City, was installed as president of the Jackson County Medical Society at the meeting of the society, January 6, succeeding Dr. Frank C. Neff. The president-elect is Dr. A. J. Welch who will become president in January, 1932.

Dr. L. C. Chenoweth, Joplin, was elected president of the Jasper County Medical Society at the annual meeting of the society, December 2.

Dr. L. H. Fuson, St. Joseph, was elected president of the Buchanan County Medical Society, December 3, 1930. Dr. Fuson was vice president in 1930 and he succeeds Dr. E. M. Shores as president.

Dr. Otto C. Horst, Springfield, was elected president of the Greene County Medical Society at the meeting of December 12, 1930.

A compound, tri-ortho cresyl phosphate, has

(Continued on page 90)

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Ulcer protection that lasts all night:

Pamine*-Phenobarbital
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Tablets

Each FULL-STRENGTH tablet contains:

Phenobarbital	15.0 mg. (¼ gr.)
Methscopolamine bromide	2.5 mg.

Dosage:

One tablet one-half hour before meals, and 1 to 2 tablets at bedtime.

Each HALF-STRENGTH tablet contains:

Phenobarbital	8.0 mg. (⅛ gr.)
Methscopolamine bromide	1.25 mg.

Dosage:

While the dosage and indications are the same as for the full-strength tablets, this tablet allows greater flexibility in regulating the individual dose, and may be employed in less severe gastrointestinal conditions.

Supplied:

Both strengths in bottles of 100 tablets.

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Missouri Academy of General Practice

J. H. Trolinger, M.D.

American Academy of General Practice

The medical event of the year for most Missouri General Practitioners occurs March 19 to 22, 1956, in Washington, D. C.; it is the eighth Annual Scientific Assembly of the American Academy of General Practice. Final plans for this major meeting were completed October 24, 1955. They show every promise of culminating in the biggest and best yet. All Missouri physicians are invited and urged to attend this meeting which is now generally regarded as the most instructive and clinically practical four day gathering offered anywhere.

Aside from the wealth of educational and pleasurable opportunities to be afforded, it is anticipated that much further progress will be made by the organizational meeting of the American Academy of General Practice in its efforts to improve American medicine. The American Academy of General Practice has attained a membership of some twenty thousand since its inception just eight years ago. Its component state chapters have made impressive strides toward improving skill and competence of generalists throughout the country; however, too many pressing (even threatening) problems remain unsolved to permit the luxury of even the briefest complacency.

The current keen and capable leaders of the American Academy of General Practice are attacking these problems chiefly as they affect the family physician—but always with the primary objective of improving American medicine and American health.

Stronger, more militant exertions are being properly made through the American Medical Association, since a large majority of our parent organization's membership is comprised of general practitioners. It is anticipated that much will be accomplished this coming year by the parental strength, facilities and various councils of the American Medical Association in solving the more pressing problems of the family physician; problems which are by the very nature of things as well as by definition those of American medicine.

Many of our general practice problems are but signs of more profound and serious trends that threaten the integrity and reputation of our entire national medical body; e.g., the rash of articles in lay magazines of recent years casting doubts and often aspersions upon the entire profession. Major specialty groups quarreling with each other through popular magazines may be an unwholesome manifestation of something more dangerous than a superabundance of superspecialists. They might well be construed as evidence of disunity and beginning disintegration of the American Medical Association—such a development to be inexorably followed by governmental domination of all phases of medicine.

Among the more pressing problems which would seem to warrant action by the American Medical Association is the arbitrary restrictions in many sections of the country on hospital practice. Many of us are viewing with alarm the growing trend of hospitals to practice medicine; such hospital restrictions deprive many competent family physicians of the privilege to practice medicine, for without available hospital facilities no modern physician can give the American people the excellent care they deserve.

The influence of the American Medical Association through its House of Delegates can do much to improve the education of medical students, interns and residents for the practice of general medicine.

The Council on Medical Education and Hospitalization can do much to implement the establishment of a Department of General Practice in more (if not all) medical schools. This would serve to increase interest as well as competence in general practice. The present day medical student is taught entirely by specialists who rouse his interest in first one and then the other specialty. Following graduation he likely as not interns in a hospital unfairly and unreasonably restricting privileges of the generalist. He naturally concludes that if he is to enjoy the now indispensable right to hospital practice he must specialize. This course of events must be contributing to the growing shortage of generalists and surplus of specialists. This shortage is most strongly felt in rural and suburban areas where the failure of a new crop of family physicians to supplement and supplant those retiring, moving their residence, dying, or for whatever reason, creates a medical vacuum too often filled by quacks and cultists.

Long before Osler's classic tribute to the general practitioner and ever since, all pay lip service to him as the "keystone," the "veritable foundation," the "sheet anchor" of American medicine. Let us hope that American medicine is now ready to pay him more in the way of cooperation in education, hospital practice and all other ways most likely to improve American medicine.

Measures contrived to make general practice more attractive will serve to augment the number of general practitioners, putting more men on the front line of medicine. This seems the most obvious way to make better medical care more easily available to all.

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Sinus Drainage and Aeration

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- ✻**Nasal Solutions** 0.25%, 0.5% and 1%
- ✻**Nasal Spray** 0.5%
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} *plastic, unbreakable squeeze bottle leakproof, delivers a fine mist*

Neo-Synephrine (brand of phenylephrine)
and Zephiran (brand of benzalkonium,
as chloride, refined),
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Women's Auxiliary

MRS. FRANK B. LEITZ, *President*

If we do not have GEMS we are liable to have JAMS.

A paragraph from "A Letter From the President" by Mrs. George Turner, immediate past president of the Woman's Auxiliary to the American Medical Association, will help you to understand our reference to GEMS-JAMS:

"GEMS (Good Emergency Mother Substitutes), which is our training course for high school baby sitters, has made the press headlines consistently in the states where I have visited. As a result of my interview concerning it over TV Station WBKB in Chicago during Conference, over seventy-five inquiries have been received. This manifested interest proves there is a need for it. The Baby Sitter literature package, which we buy from the National Safety Council, may be had from our Central Office for $1.10. It takes time to promote a new project but my hope is that each state will participate in this needed service to their local communities this year."

In the January 1955 *Bulletin* of the Woman's Auxiliary to the American Medical Association as part of the President's Message we read: "GEMS, our safety training course for high school baby sitters, has made the headlines in the press, on radio, and on television."

We are informed by our National Office that Dr. W. W. Bauer, director of the Bureau of Health Education of the American Medical Association, has a new TV Show called "BABY TIME," which will eventually be on nationwide hookup. One of his scripts, which will start in late January or early February, will deal with baby sitting and in this connection he has mentioned our National Auxiliary's GEMS project.

In Kansas City the program will be at 1:00 p.m. on Tuesday over station KCMO-TV, and in St. Louis at 9:30 a.m. on Monday and Friday over station KSD-TV.

It has been arranged for Mrs. Harold R. Lyddon, Jr. of Kansas City and a member in St. Louis to work with the TV stations on this project. These auxiliary members will have been sent a supply of GEMS material by our National Office. Requests for the material will be received by the TV stations and they in turn will forward these requests to our auxiliary members.

We are grateful to these members for their expressed willingness to help with this worthwhile National Auxiliary GEMS project.

We hope that members of the Missouri State Medical Association will help us to publicize the TV Show called "BABY TIME" and the part auxiliary members are playing in an effort to provide GEMS rather than JAMS.

Missouri Medicine in Review

(Continued from page 86)

been definitely identified as the cause of ginger paralysis according to a recent announcement by the United States Public Health Service. This chemical is the main constituent of technical tricresyl phosphate which is widely used in the manufacture of shellacs, varnishes and similar preparations. It is cheap and readily obtained and appears to have been used to replace ginger. The precise reason for including this remarkable substance as one of the ingredients of a substandard fluid extract of ginger made and sold for beverage purposes will probably never be known, unless a confession is wrung from the guilty ones.

TEN YEARS AGO

The 88th Annual Session of the Missouri State Medical Association will convene March 24, 25 and 26 at the Jefferson Hotel, St. Louis.

Physicians who are reentering practice after returning from service are eligible to receive unemployment compensation if their net earnings are less than $100 monthly. This is handled by the United States Employment Service.

Dr. E. C. Bohrer, West Plains, speaking before the Business & Professional Women's Club of West Plains, told of different plans for establishing hospitals in rural areas.

The *Quarterly Review of Pediatrics* is issuing its initial number in February 1946. Irving J. Wolman, M.D., Children's Hospital, Philadelphia, is editor-in-chief.

Dr. Arthur C. Clasen, Kansas City, has been promoted to a Captain and assigned as chief of medicine at the Naval Hospital at Seattle.

Dr. Harry B. Stauffer, Jefferson City, was elected president of the hospital staff of St. Mary's Hospital, Jefferson City, at a meeting on December 19.

Dr. R. Hart Donnell, Crystal City, was a guest of the Rotary Club of Crystal City on December 18 and told of his experiences in Army hospitals.

Dr. Ira H. Lockwood, Kansas City, president of Surgical Care, Inc., explained recent developments in the medical care plan in the Kansas City area before sixty recently discharged physicians and surgeons at a dinner.

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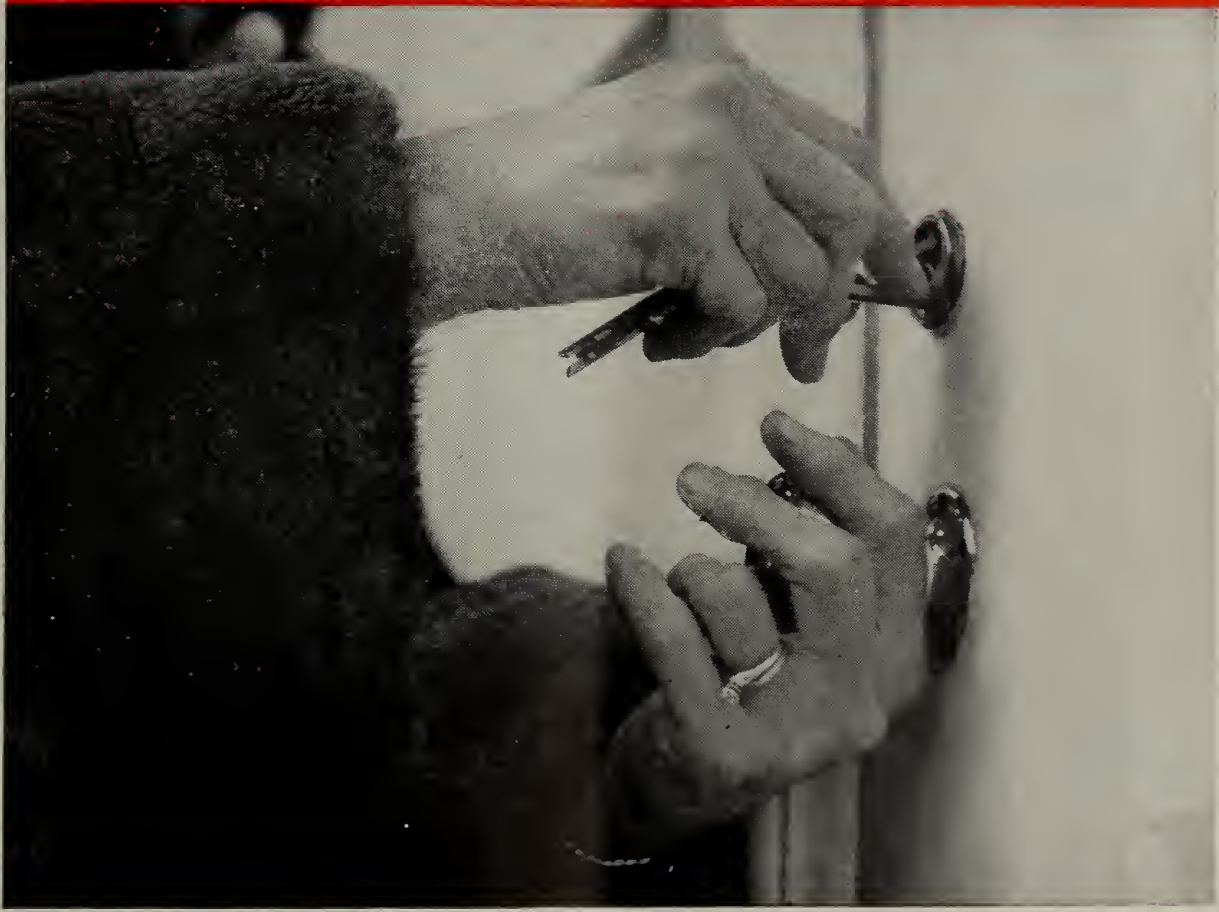
MAJOR ADVANTAGES: Greater anti-rheumatic activity than cortisone; smaller doses produce clinical improvement faster and more uniformly.[1]



HYDROCORTONE is a practical long-term therapeutic measure in the majority of patients suffering from rheumatoid arthritis. The use of small doses of HYDROCORTONE in conjunction with conservative general measures will permit the safe management of these arthritics for prolonged periods of time. Such a program has been shown to provide moderate to great relief in a very high percentage of patients.[2] In severely handicapped people, HYDROCORTONE plus physical therapy will frequently allow the rehabilitation of arthritics who would not be helped appreciably by either measure alone.[3]

OTHER INDICATIONS: Still's Disease, rheumatoid spondylitis, psoriatic arthritis, traumatic arthritis, osteoarthritis, and bursitis.

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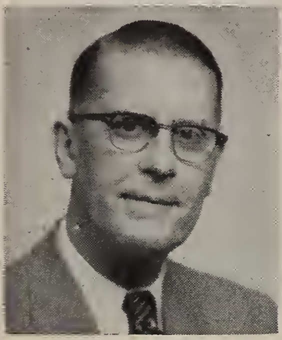
REFERENCES: 1. Boland, E. W. and Headley, N. E., *J.A.M.A.* **148**:981, March 22, 1952. 2. Ward, L. E., Polley, H. F., Slocumb, C.H. and Hench, P.S., *J.A.M.A.* **152**:119, May 9, 1953. 3. Snow, W. B. and Coss, J. A., *N.Y. State J. Med.* **52**:319, Feb. 1, 1952.

Missouri State Board of Medical Examiners

DUFF S. ALLEN, *President*

How Bad Is the Distribution of Physicians?



February is the month for the Annual Congress on Medical Education and Licensure. The 51st meeting held in February 1955 was one of the most important in the history of the Federation because of the ever increasing problems which are confronting us today. Papers were presented there on the problem of foreign medical graduates, the question of internship in modern medical education, the question of making the nonuniversity hospital a graduate medical center, problems in intern-residency training for graduates of medical schools outside the United States and Canada, the use of formal didactic training in graduate medical education, a uniform practice act, and the establishment of a Cooperating Committee on evaluation of graduates of foreign medical schools.

This annual congress is made up of representatives of the State Boards of Licensure of the fifty-five states and territories known as the Federation of the State Medical Boards of the United States, the Council on Medical Education and Hospitals of the American Medical Association, the Advisory Board for Medical Specialists, and representatives of the National Board of Medical Examiners and of the Association of American Medical Colleges. In the past the Missouri State Board has been well represented at this Congress. During the recent past our attendance has been almost 100 per cent of our members. This is a serious hard working convention, as it should be.

The Federation of State Medical Boards of the United States publishes a monthly bulletin, *The Federation Bulletin,* in which appear the papers read at this convention. One of the most interesting of these deals with the question, "How bad is the Distribution of Physicians?," by Dr. Frank G. Dickinson, Ph.D., who is the Director of the Bureau of Medical Economic Research of the American Medical Association. He divided the United States into 757 medical areas corresponding to service or trading areas and studied seventy-five of these areas that have the highest number of persons per physician and seventy-five areas that have the lowest number of persons per physician. The highest number of people per physician was found in the mountainous and rural areas where only 2,020 active physicians serve the 4,700,000 persons, or one physician to each 2,120 persons. The more densely populated areas in this study had 81,000 active physicians who served 56,000,000 inhabitants, or one physician for each 690 persons.

The conclusion reached by Dr. Dickinson was that the "national physician shortage is confined largely to the less densely populated areas." He says, "according to this geographic survey of the distribution of physicians, the results are very reassuring, but it does not justify relaxing our efforts to stimulate and facilitate the settlement of well trained young physicians in the rural areas. The constant threat of the increasing influx of inadequately prepared foreign medical graduates who practice in this country must ever be borne in mind."

The distribution of physicians is of interest to your State Board of Medical Examiners because of the desire first of all to improve the supply of physicians to our rural areas. Then, too, when we find a cultist in a small town who is dispensing powerful medicines illegally and unintelligently, we are sometimes deluged with letters from his friends, saying that he is a "fine fellow" and that he should be allowed to continue. We feel that the people in our small communities deserve to have the benefits of modern medical research, of modern medical education and modern medical care. They cannot get this except through the services of the trained physician.

Do we have a shortage of physicians in Missouri? The answer is yes and no. We do have a shortage in some rural areas but it is not so apparent in our larger cities. Whatever shortage exists in Missouri is largely due to faulty distribution. We have 6,653 registered physicians in Missouri and if they were evenly distributed, it is quite likely that we would have adequate medical service throughout the state.

The Missouri State Medical Association has long been aware of the need for physicians in the smaller towns and rural areas. In 1946 the position of a full time Field Secretary was created and Mr. Ray McIntyre (634 North Grand, St. Louis 3, Missouri) was appointed to this office. He has helped to place many of the 600 physicians who have located in these smaller towns and communities since the end of World War II.

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Progress of the Prepayment Plans

St. Louis Blue Shield (Missouri Medical Service) is now offering to selected groups its new and broader Blue Shield, Preferred program of medical-surgical-obstetrical benefits.

Included in the Blue Shield, Preferred coverage are surgical benefits ranging from $5.00 to $300.00 for hospital bed patients. Medical benefits for hospital bed patients are paid for daily doctor visits for seventy days per confinement after the first day of hospitalization.

"The Blue Shield, Preferred program was established in response to requests for broader protection from both employer and employee groups," it was stated by Carl F. Vohs, M.D., president of St. Louis Blue Shield. "It was designed specifically to meet the highest standard of current health and welfare programs.

"This new program," Dr. Vohs said, "is being offered only to selected groups because of the extensive scope of its benefits and the realistic limits of its costs."

Enrollment of at least 75 per cent of all employees eligible for membership in a group—with the minimum enrollment being twenty-five—is required of all groups taking the Blue Shield, Preferred program.

As the New Year Started

The following editorial by G. Wilse Robinson, Jr., M.D., Kansas City, appeared in the December 31 issue of the *Jackson County Medical Society Weekly Bulletin.* Its applicability throughout the year prompted request to reprint the editorial.

"Tonight at midnight the old man goes away and the new baby in the three-cornered pants is ushered upon the scene with noise, shouting and revelry. 1955 goes the way of all years and 1956 appears to run his 366 days, and then like '55, goes away and a new baby succeeds him.

"When some of our readers receive this on January 3 or 4, the deed will have been done. It will not be too late for this message, however, because the message is eternal.

"It is not your Editor's message. Once more your Editor is plagiarizing. He is taking both thought and words from the greatest story ever told, and the greatest Book ever written.

"Some who read this page do not believe that the Lord Jesus was the Savior, the Messiah, the Sone of Gog, God Himself. Some few even deny that He ever lived. To each his own beliefs. But among these, and they may be many, few (if any) will rise up and say that the words, the thoughts and the way of life contributed by Him are wrong or in error.

"He said on one memorable day, 'If therefore thou offer thy gift at the altar and there remember that thy brother hath anything against thee, leave there thy offering before the altar and go first to be reconciled to thy brother, and then coming thou shalt offer thy gift.'

"We frail, strange, imperfect, emotional humans have many 'brothers' to whom we should be reconciled before we offer our gifts at the altar.

"Wouldn't it be wonderful if in 1956 we could all, repeat all, resolve that no matter what the provocation, we as persons would never say or think an unkind thing, or even hint at an unkindness toward a colleague or anyone associated with a colleague? And we should get all of the folks who work with us to make the same resolution; and we would all resolve never to talk about anyone unless we had something nice to say?

"Yes, that would be Utopia and perhaps impossible, since after all, we are imperfect. In certain situations and circumstances someone must speak out against wrong-doing and neglect. He understood that this is necessary and did it Himself.

"But every day, sometimes every hour, and surely every week, we say and also hear malicious things designed only to hurt someone. These hints, suggestions and innuendoes are frequently uttered by those who work with us, our nurses, secretaries and other helpers who are motivated by a false concept of loyalty into trying in some off-hand way to undermine a colleague whom they consider a competitor or whom they think has done their boss-man dirt.

"Ever since I can remember I have been a part of the profession of medicine, and ever since I can remember those who work with the physicians have been engaged in countless skirmishes to do what they think is best for their doctor.

"Ethics as we physicians have learned them, prohibit us from doing certain things. However, an ethical concept that remains at the top and does not seep down is fruitless. We, the boss-men, should see that all of those who work with us have the same high concept of inter-personal relationships that we as physicians have with each other.

What is gained if Dr. Jones and Dr. Brown are ostensibly good friends, if their respective assistants spend a part of their time undermining the reputation of the other?

"Loyalty to one's boss-man should entail loyalty to his ethics and beliefs."

Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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Vol. 53 February, 1956 Number 2

Experiences With Hypaque

A New Contrast Media in Cerebral Angiography

EDMUND A. SMOLIK, M.D., AND FRANCIS P. NASH, M.D., *St. Louis*

THE INCREASING use of cerebral angiography for the diagnosis of neurosurgical disorders has stimulated the search for an improved contrast medium. The ideal radiopaque medium should provide excellent radiographic contrast and at the same time be free of untoward local or systemic tissue reactions. Since the contrast media now available have produced hazardous reactions, in some instances, a preparation which offers both increased patient safeguard and improved radiographic contrast deserves careful study.[1, 2, 3, 4]

Laboratory studies utilizing rats, cats, dogs and monkeys showed Hypaque* to have an extremely low toxicity. Injections intravenously into animals provoked minimal autonomic responses. There were less vascular intimal irritation and renal tubular injury than were observed in similar control animals injected with other contrast media. Excretion studies indicated that the drug was rapidly eliminated through the kidneys in an unchanged form.[5]

This compound contains 59.87 per cent iodine. The substance is a highly water soluble crystalline solid. The pH of the 50 per cent solution varies from 7.0 to 7.5.

The chemical and pharmacologic properties of Hypaque suggested that this substance may possess certain advantages which make it suitable for clinical use as a contrast medium.[5] Reports concerning the use of Hypaque in intravenous pyelography described sharper delineation of renal structures with this substance than were obtained with other contrast materials. Fewer toxic side reactions were observed.[6, 7] From this laboratory and clinical evidence, it appeared likely that this compound could be used to advantage in cerebral angiography.

Hypaque Sodium (WIN 8308-3) is a synthetic compound of the following chemical structure:

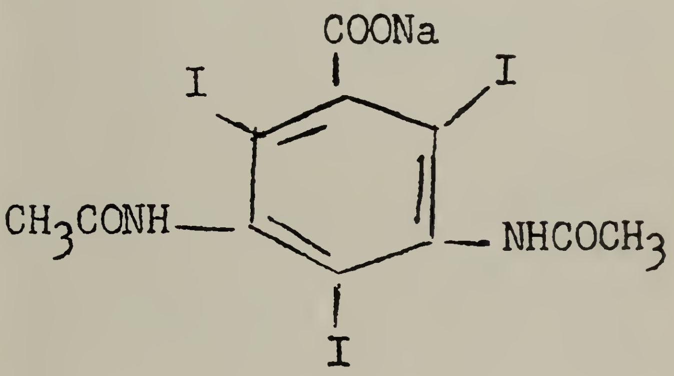

Fig. A

It is the purpose of this paper to report our clinical experience using Hypaque as a cerebral angiographic medium during the last six months.

PROCEDURE

Thirty-nine cerebral arteriograms were performed on thirty patients using 50 per cent Hypaque Sodium as the contrast media.

Light sodium pentothal anesthesia was used in all these procedures.

The patients studied ranged in age from 16 to 65 years. In this series there were five vertebral arteriograms. Four patients had bilateral carotid injections. In thirty instances the arteriograms were done percutaneously.

Single injections of 12 cc. volume were used for each series of radiographic exposures. A total of 1,322 cc. was given in 113 intra-arterial injections. The average amount of dye per patient was 44 cc. (table 1).

---

* Hypaque Sodium was supplied by the Department of Medical Research, Winthrop Laboratories, Inc., New York 18, New York.

From the Department of Surgery (Section of Neurosurgery), St. Louis University School of Medicine and the Neurosurgical Services of DePaul and St. John's Hospitals.

TABLE 1

CEREBRAL ANGIOGRAPHY USING 50 PER CENT HYPAQUE SODIUM

Number of patients	30
Number of cerebral angiograms	39
Number of injections	113
Total amount of hypaque injected	1322 cc.
Average amount of hypaque per patient	44 cc.
Number of complications following hypaque injection	0

Each patient was observed carefully for signs of local, or systemic, hypersensitivity reactions. Prior to each study, the patient's temperature, blood pressure, pulse and respirations were recorded. Following each injection the patients were carefully observed for signs of excessive sweating, wheezing, dyspnea, laryngospasm, cyanosis, skin flush or pallor, facial edema, body urticaria or for changes in blood pressure, pulse, temperature or respiratory rate. All observations were recorded on protocols prepared for this purpose (table 2).

TABLE 2

E. A. S., M.D. Date....10/3/55

HYPAQUE SODIUM 50%

Case Report Form

Name: C. R. Age: 65. Sex: Female.

Diagnosis: Possible Intracranial Aneurysm R. Dose: 2 x 12 cc.

History of: Allergy (Hay Fever, Asthma, etc.). Drug Idiosyncrasy, esp. Iodine: No.

	Temp.	*Pulse*	*Resp.*	*B.P.*
Before injection	99.2	100	28	160/80
After injection				
15 minutes	98.4	80	28	140/80
30 minutes	98.4	80	26	130/20

Indicate by check whether any of the following phenomena occurred during the test period:

1. Nausea of vomiting .. No
2. Excessive sweating or salivation .... No
3. Choking sensations .. No
4. Wheezing .... No
5. Shortness of breath .. No
6. Cyanosis .... No
7. Flushing of skin .... No
8. Extreme pallor ...... No
9. Itching sensations ... No
10. Facial edema .... No
11. Sneezing .... No
12. Urticaria .... No
13. Vein cramp .... No

Describe any untoward reactions not included in the above list. None.

Quality of pictures: Excellent.

COMMENTS: Intracranial Aneurysm: Rt. Int. Carotid Artery

RESULTS

No major untoward reactions occurred in our group of patients. In no instance was there a significant change in body temperature, blood pressure, pulse or respiratory pattern following the injections.

In six cases there was a transient, slight facial pallor or flush, lasting less than three minutes. No abnormal local soft tissue reactions at the site of injections were observed.

The radiographic delineation in every case was excellent. The sharp, distinct, vascular outline using Hypaque was superior, in our opinion, to that obtained using presently available contrast media (fig. 1).

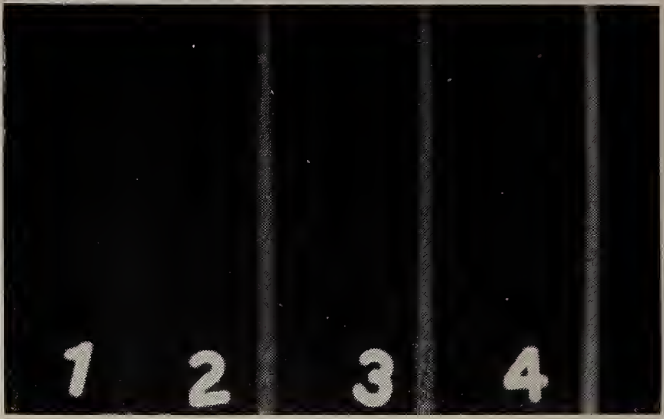

Fig. 1. A roentgenogram showing the relative densities of Hypaque and two other angiographic contrast media. Tube 1, empty plastic tubing. Tube 2, 35 per cent diodrast. Tube 3, 35 per cent urokon. Tube 4, 50 per cent Hypaque.

In three instances the Hypaque solution was

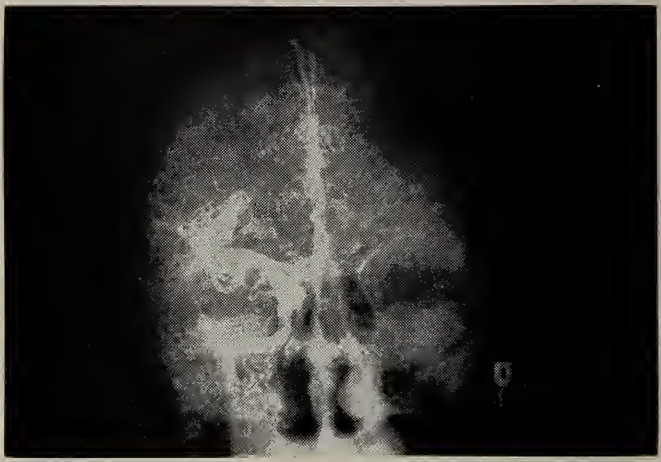

Fig. 2. A frontal view of a normal cerebral arteriogram (Hypaque).

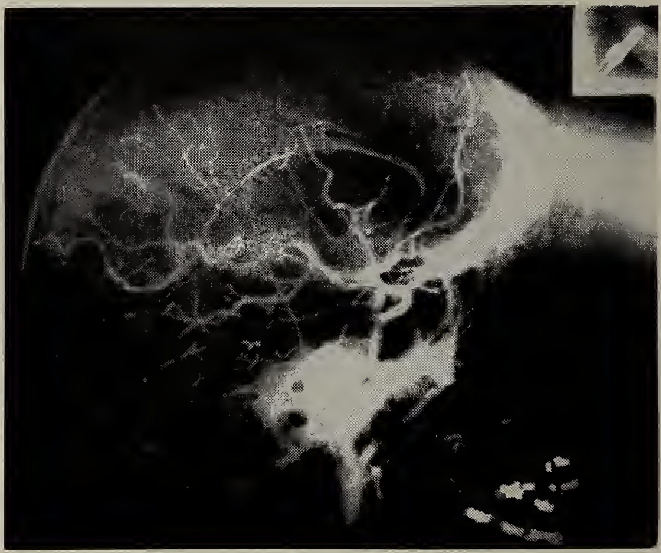

Fig. 3. A saccular aneurysm of the right internal carotid artery (Hypaque).

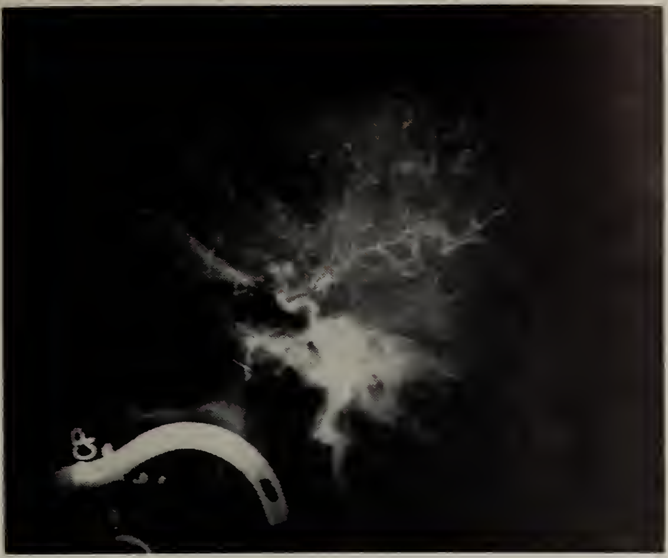

Fig. 4. An aneurysm of the anterior communicating artery (Hypaque).

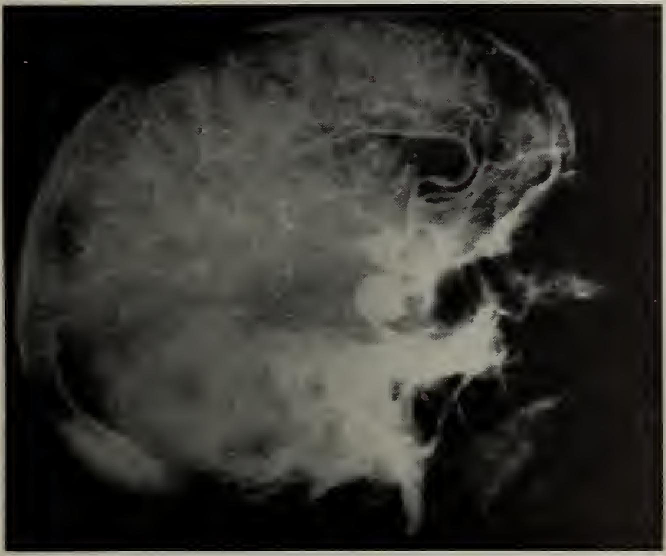

Fig. 5. A large infraclinoid aneurysm of the right internal carotid artery (Hypaque).

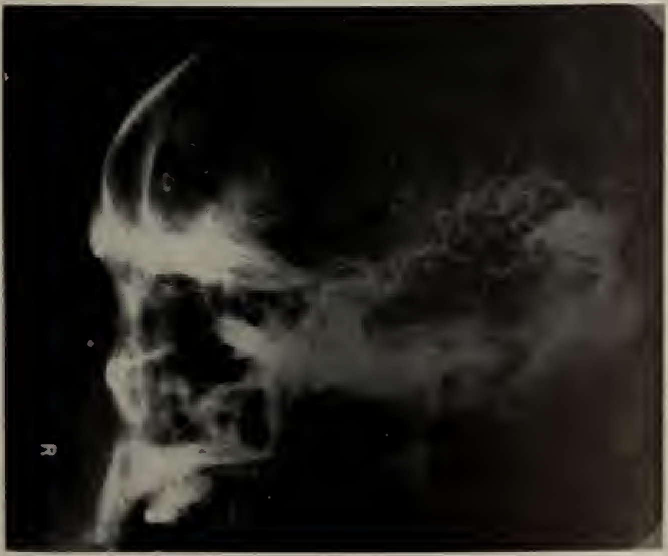

Fig. 6. An angiomatous lesion of the left posterior parietal area (Hypaque).

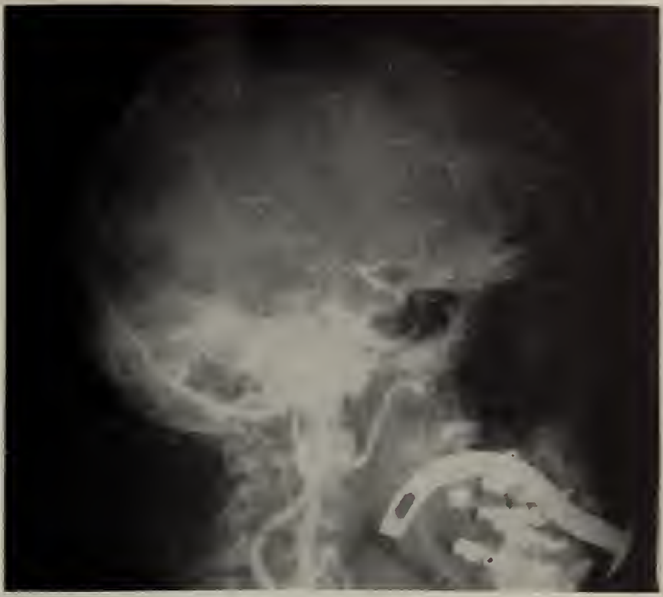

Fig. 7. A thrombosis of the left middle cerebral artery (Hypaque).

serially diluted to determine the lowest concentration of the compound which would give adequate vascular outline. Concentrations of less than 40 per cent failed to give as good a vascular skiagram as obtained with the 50 per cent Hypaque.

Figures 2 through 7 are representative of the cerebral arteriograms obtained using this technic and media.

SUMMARY

1. Our experiences using a new contrast media in cerebral angiography are reported.
2. The vascular detail using Hypaque Sodium 50 per cent is excellent, and superior in quality to those obtained using other contrast media.
3. No major untoward reaction occurred following the use of this substance in a series of thirty-nine consecutive cerebral angiograms.

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We wish to thank Mr. Paul L. Orr for his kind assistance.

Aids in Proctologic Teaching

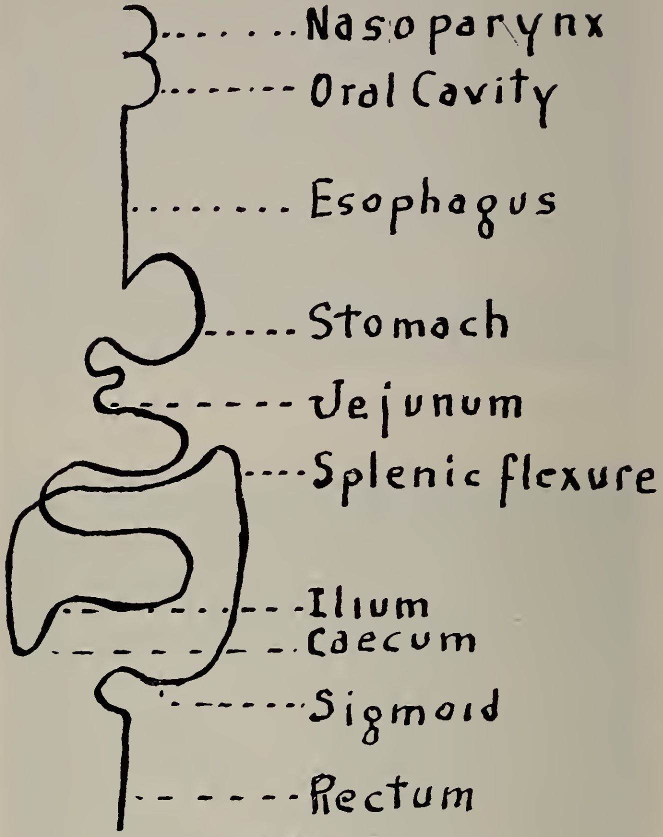
MARK M. MARKS, M.D., *Kansas City*

The need for additional methods in medical education is self evident. Proctology has not kept pace with other fields in medicine because of the seeming difficulty in acquiring sufficient training. The trial and error methods of teaching this subject in the past are expressed today in the competence of a comparative few and the haphazard indifference of many who treat anorectal diseases with scant knowledge and less concern. My interest in promoting better understanding of proctology in the undergraduate student where, I believe, it should start, prompted the development of methods and aids in teaching that have proven useful. These are described and discussed in this paper.

Knowledge of anatomy is difficult to retain and when one is unable to correlate the new information to past experiences it then becomes a matter less of cogitation and more of memory. The vastness of the subject and the limited time spent on any one part of the anatomy leaves the student with but the vaguest memories of it. During internship some guidance in a specialty may revive interest to increase specific anatomic knowledge. However, one is just as likely to see and assist at surgery with one who likewise is limited in ability because of this deficiency. This substandard concept becomes accepted and so is carried through following generations.

To initiate the student into the intricacies of proctologic anatomy he should first be apprised of the fact that the terminal portion of the bowel and its appendages are to be considered, not as an orifice or as an organ, but as a functional, integral part of the digestive tract. To impress this point a simple line sketch (fig. 1) is drawn to indicate the complete enteric tube and is referred to when didactic lectures are given on such subjects as causes for rectal bleeding, diarrheas, constipation, megacolon and other abnormalities. By using this drawing it is possible to keep in focus the relationship of function and dysfunction as applied to the total patient.

Detailed anatomy of the anorectum also is explained with colored chalk and drawings. If illustrations are made while discussing the subject instead of presenting a complete picture, the relative positions of the various structures will more readily be understood. When specific parts are to be shown such as the blood supply, the terminal fibers of the longitudinal muscle, crypts, endopelvic fascia or any other structure of particular interest, these may be drawn first and the surrounding tissue added to show the integration of function. The student himself should be encouraged to make similar drawings to familiarize himself with the parts. By such application he can become aware that muscles of similar function have similar vascular and nerve supply and that the fascia of one part is a continuation of the fascia from adjacent structures. As more information is gained, interest is maintained and patterns of learning are set that apply to all branches of medicine.



The Enteric Tube.

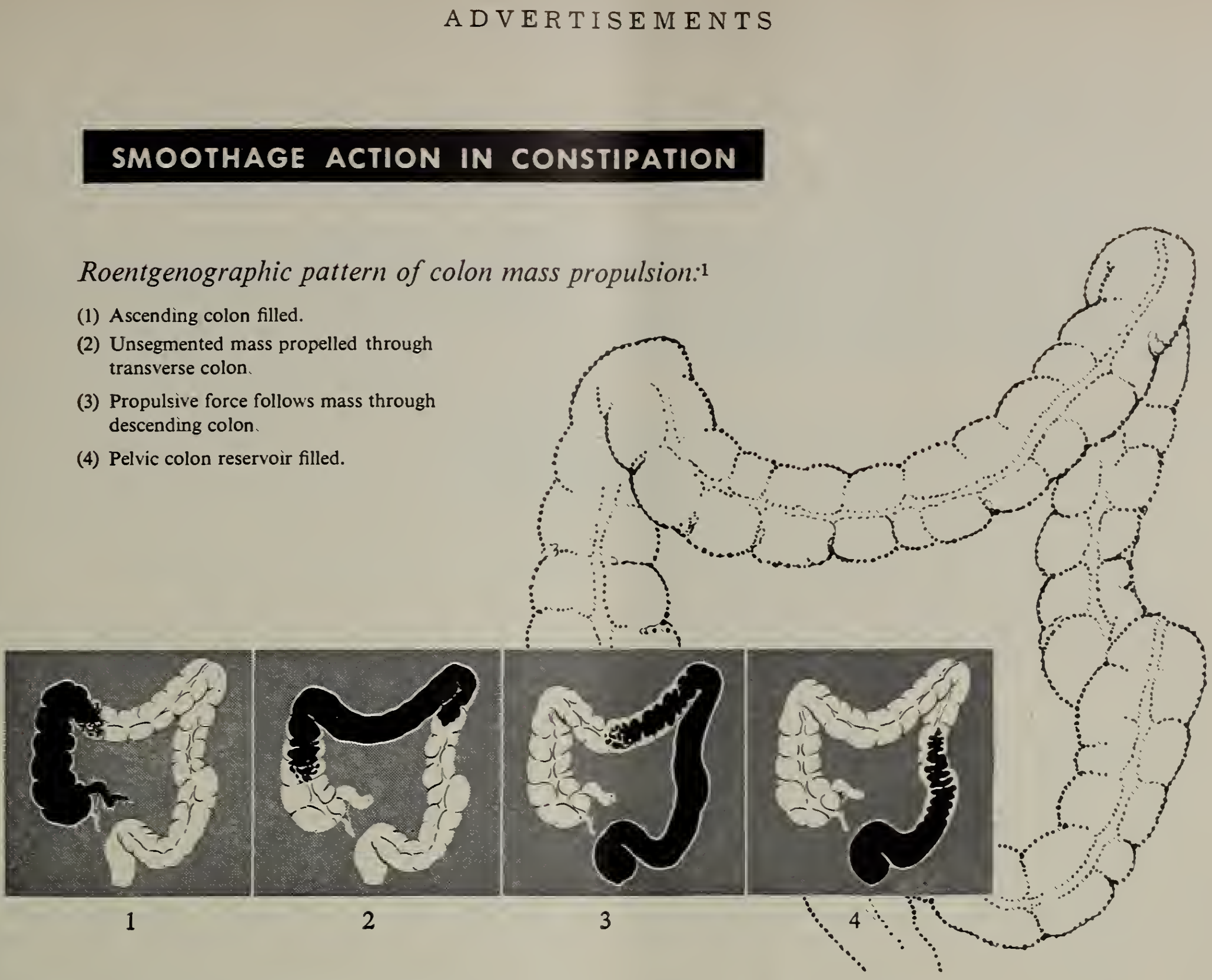
Another aid in teaching proctologic anatomy is the use of wire models of the bony pelvis. Colored yarns in these models illustrate the component sional effects. The bony pelvis itself can be useful as a frame upon which other material can be placed to indicate anatomic parts. Plastilene, an oil clay, can easily be modeled to show muscles, fascia or even organs to better portray the relationships and to clarify questions that may be asked concerning this.

The students should be urged to use these materials because, in addition to learning the anatomy, the manual dexterity that is required helps them in handling viable tissue in the operating room.

Further instruction in anatomy is given with

From the Menorah Medical Center, Section on Proctology, Department of Surgery, Kansas City, Missouri.

SMOOTHAGE ACTION IN CONSTIPATION



Roentgenographic pattern of colon mass propulsion:[1]

(1) Ascending colon filled.
(2) Unsegmented mass propelled through transverse colon.
(3) Propulsive force follows mass through descending colon.
(4) Pelvic colon reservoir filled.

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Such gentle stimulation is of distinct advantage in reeducating and reestablishing those reflexes which control bowel evacuation. Many factors may pervert the normal reflexes, causing finally chronic constipation. Among them are: nervous fatigue and tension, improper intake of fluid, improper dietary habits, failure to respond to the call to stool, lack of physical exercise and abuse of the intestinal tract through excessive use of laxatives.[2]

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SEARLE

plastic models and moulages. The observer can then see the previous drawings assume lifelike form and color. Since these models may be handled without fear of breaking, the addition of the tactile to the visual and auditory senses makes learning less difficult. Pertinent points in question can be answered that may not be so readily demonstrated in other ways. Practical application of this added information can also be shown, thus preparing the student for actual training in surgery.

Moulages can be made for a variety of purposes. They can show forms depicting differential diagnosis, congenital defects or anatomic sections of particular importance. They can also be facsimiles of specimens removed at surgery or at postmortem and kept as permanent records. Bowel carcinoma, reginal ilitis, colitis or any gross pathologic varience can be reproduced and be available long after the actual specimen itself has been destroyed.

The projection of colored slides for teaching purposes is universal, but in proctology they have not been used to their fullest extent. The quantity and quality of teaching material are endless and permit a variety of subjects that cannot be matched. The source of such slides may be from one's own collection, hospital files or obtained by barter. For this reason I take two of each photograph and have obtained some excellent ones by exchange.

Once the student has grasped the fundamentals of the regional anatomy involved in proctology, he should be permitted to see corrective surgery and even assist in it. Prior to operating, the history and findings in each patient are reviewed. The student should be impressed with the fact that it is important for him to understand the "why" of the procedures and that the "how" will become evident later. With the patient draped and prepared for surgery, a reexamination is made to check on the previous findings. The landmarks and abnormalities are pointed out and, as the corrective procedures are carried out, explanation is made. The anatomy is again demonstrated to freshen the memory of previous drawings and models. The preference for specific suture material, instruments, medication and dressings are discussed. Following each case a short résumé of the findings and the reasons for the procedure are reevaluated. A question and answer period can show if the student has grasped the meaning of what has been going on and can also show where further emphasis is required to make the teaching more clearly understood.

Instruction in the postoperative care of patients is no less important than the surgical procedure and the student must learn that proper and adequate treatment can be the difference between success or failure in recovery for the patient. Through hospital rounds and outpatient clinics and even in one's own office, this phase of teaching can be demonstrated. Office management from the clinical viewpoint entails many elements that require understanding in the complete care of the patient with proctologic complaints. Once the student has seen and understands the standards set in this field, he will be more apt to look for the same excellence in other branches of study.

The physical aids for proctologic teaching that I have mentioned are in some respects experimental and should be further explored to find still better ways of gleaning the truth. In themselves they are not enough nor are they substitutes for interest, imagination or work.

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1165

Postgraduate Review

Cardiac Surgery: Looking Backward and Ahead

ARCH J. BEATTY, M.D.; JOHN W. POLK, M.D., AND CHARLES A. BRASHER, M.D.,

Mount Vernon, Mo.

"Disease is very old and nothing about it has changed. It is we who change as we learn to recognize what was formerly imperceptible."—J. M. Charcot (1875).

THE STORY OF surgery of the heart is one of the most fascinating in the annals of medicine. Its development has been extremely slow. This was well illustrated by Sherman's classic statement in 1902, "The road to the heart is only two or three centimeters in a direct line, but it has taken nearly 2,400 years to travel it." Progress in the treatment of congenital and acquired heart disease has been so extensive and spectacular in the last fifteen years that considerable interest has been focused on the entire field of cardiac surgery.

CLASSIFICATION OF HEART DISEASE

Acquired cardiovascular conditions that may necessitate operative intervention are:

1. Infection.
2. Wounds of the heart.
3. Foreign bodies in the heart.
4. Tumors of the heart.
5. Coronary insufficiency.
6. Valvular lesions: (a) mitral stenosis and regurgitation; (b) aortic stenosis and regurgitation; (c) tricuspid stenosis.

Congenital anomalies that may require surgical intervention are:

1. Patent ductus arteriosus.
2. Coarctation of the aorta.
3. Aortic rings and other vascular anomalies.
4. Cyanotic heart disease: (a) tetralogy of Fallot; (b) pure pulmonary stenosis; (c) other anomalies.

ACQUIRED HEART DISEASE

Infection—Acute suppurative disease was the first cardiac condition to receive surgical attention. More than three hundred years ago Jean Riolau[1] advised trephinement of the sternum for drainage of the pericardium. A full century passed, then de Senac[2] described pericarditis, recommending drainage for its treatment with the opening in the chest to be made to the left of the sternum in an intercostal space. Larry,[3] Napoleon's brilliant surgeon, attempted the procedure a few years later but the diagnosis was in error. Romero,[4] in Spain, was finally successful in 1819. He opened the pericardium for effusion in three cases with two cases surviving.

Many cases of chronic constrictive pericarditis are secondary to tuberculous involvement of the pericardium. It is proper to operate as soon as evidence of the constriction is manifest. By the adoption of such a policy the operative procedure is rendered easier, safer and more effective. Moreover, the damaging effect of the prolonged constriction is avoided. Antibiotics and chemotherapy have played an important role both prior to surgery and afterward.

Wounds of the Heart—The eminent surgeon, Louis Rehn,[5] of Frankfurt, Germany, succeeded at the beginning of the 20th century in performing operations on the heart. He was the first, long before the first World War, to tackle a knife wound in the right ventricle of the heart which, at that time, involved considerable risk. He was also the first to perform decortication for adhesive pericarditis. Moreover, he accomplished a great deal of clinical investigation and appeared frequently before the profession to defend the infant specialty. How young this branch of surgery really is can be appreciated by the fact that Rehn died in 1930 at the age of 81. For these reasons Rehn might be called the "Father of Cardiac Surgery."

In 1883 Billroth,[6] the famous German surgeon, wrote: "The surgeon who should attempt to close a wound of the heart would lose the respect of his colleagues." In 1896 Stephen Paget,[7] son of the famous James Paget, stated in the first work devoted to this subject in English: "Surgery of the heart has probably reached the limits set by nature to all surgery. No new method and no new discovery can overcome the natural difficulties that attend a wound of the heart."

Rehn,[5] in that same year, 1896, as if in rebuttal, reported his case of a 22 year old man with an actively bleeding wound of the right ventricle which he closed with silk sutures. The patient made an uneventful recovery. This case report was all the spark that was needed. Within the next six years thirty-four additional operations were reported.

Two world wars and the recent so-called "Ko-

(A. J. B.), Consultant in Cardiovascular Surgery; (J. W. P.), Chief of Surgery; (C. A. B.), Superintendent and Medical Director, Missouri State Sanatorium, Mount Vernon, Missouri.

rean Police Action" have given extensive experience in the handling of traumatic wounds of the heart. Usually penetrating wounds of the heart in civilian life are produced with homicidal or suicidal intent. Ice picks, knives and pistols are the most common weapons with which this injury is inflicted. However, the heart may be injured by crushing contusions such as occur in automobile accidents in which there is penetration by glass and splinters. Early diagnosis and treatment is necessary since delay may be rapidly fatal.

Foreign Bodies in the Heart—World War II gave extensive experience in the problem of foreign bodies in and about the heart. Harken was able to remove thirteen intracardiac missiles without a death.

Tumors of the Heart—Primary tumors of the heart are extremely rare and are seldom suspected before postmortem examination.

Coronary Insufficiency—In 1768 William Heberden[8] presented before the College of Physicians in London a treatise entitled "Some Account of a Disorder of the Breast." It begins as follows: "There is a disorder of the breast, marked with strong and peculiar symptoms, considerable for the kind of danger belonging to it, and not extremely rare, of which I do not recollect any mention among medical authors. The seat of it, and sense of strangling and anxiety with which it is attended, may make it not improperly be called angina pectoris."

It is important to understand that angina pectoris is a symptom complex and not a specific disease. Medical knowledge is based upon what patients are able to describe of their symptoms. Moreover, as far as is known, this disease exists only in human beings. These factors may shed light on the reason that so many different kinds of surgical treatment have been advocated. Because disease of the coronary arteries plays such a dominant role in cutting short the productive age of man, it has long been the subject of study.

In 1899 Francois Franck[9] first proposed a surgical treatment for angina pectoris. However, it was not until 1916 that Jonnesco[10] of Bucharest actually operated upon a human being with syphilitic aortitis and angina, obtaining complete relief of the pain by interruption of the sensory nerve pathways.

Two surgical approaches have been used in the treatment of angina pectoris: (1) the interruption of sensory nerve pathways to the heart, and (2) the creation of new vascular channels to the heart.

Two objectives are thought to be achieved in interrupting the sensory nerve pathways to the heart. The first objective is the actual blocking of the different sensory pathways. The second objective is to block the vasomotor impulses to the heart which, in return, cause vasoconstriction. Many surgeons have reported favorable results with various technics of cardiac pain pathway ablation.

A great many operations have been proposed for the purpose of creating new vascular channels to the heart. Direct approaches to increase the blood supply to the heart were carried out, using experimental animals, by Beck,[11, 12] in 1935, who used muscle as a vascular graft; by O'Shaughnessy[13] in 1936, using omentum, and by Lezius[14] in 1937, using lung.

Various modifications of these surgical procedures have been carried out by many surgeons and all reported favorable results. Beck's first operation involved covering the heart with a flap of pectoralis major muscle and suturing it to the parietal pericardium. The vessels of that muscle were used as a source of collateral blood supply. In subsequent studies he effected a new blood supply to the heart through vascular channels resulting from a mechanical abrasion and chemical irritants.

O'Shaughnessy's operation differed from Beck's in that he used omentum as a source of collateral blood supply. He was encouraged by his results but this work was interrupted by his tragic death during the battle of Dunkirk in World War II.

Lezius (1937-1938) in Germany was more concerned with the utilization of the lower lobe or the lingula of the left lung as a source of collateral blood supply to the heart. He produced sterile adhesions by painting the opposing surfaces of both organs with a 30 per cent of trypaflavine and then sutured them together.

Fauteaus,[15] in 1946, while not attempting to produce collateral coronary circulation, sought to relieve the symptoms of coronary artery disease by combining coronary vein ligation with pericoronary vein neuronectomy. A still different approach to the revascularization of the ventricular myocardium was reported by Vineberg[16] in 1946 and 1947. He utilized the left internal mammary artery as a source of fresh arterial blood supply.

Arterialization of the great cardiac vein was first suggested as a method of revascularization of an ischemic myocardium by Roberts, Browne and Roberts[17] in 1943. After experimental trials on dogs, Beck[18] tried this method on humans. In 1949 he reported results on five patients who had had this procedure. Two patients were living and three had died but, of the three who died, the necropsy report showed that the graft was still patent.

Thompson[19] has sought to change an ischemic myocardium of coronary disease to a myocardial hyperemia. This is accomplished by distributing magnesium silicate powder over the heart inside the pericardial sac. The powder produces a foreign body reaction and a granuloma which involves the superficial myocardium and pericardium. It stimulates the development of intercoronary anastomosis and produces adhesive pericarditis. The new collateral blood supply to the heart is thus both intra and extra cardiac in origin.

Thus, it is seen that many surgical approaches have been designed for the relief of coronary insufficiency. In two series of fifty dogs each, Beck[20] ligated the anterior descending branch of the left coronary artery 0.5 cm. below its bifurcation, with a mortality of 70 per cent in one series and 68 per cent in the other. With simultaneous abrasion of the entire epicardial surface, mortality from ligation was 60 per cent in another series of fifty animals. When abrasion was done from one to three weeks prior to ligation, the mortality was 38 per cent. In nineteen experiments in which adhesions were produced by the introduction of finely powdered asbestos into the pericardial sac, the mortality from subsequent ligation was 31 per cent. The degree of unfarction was found to be less in the three series of animals with protective adhesions than in the two series with ligation alone.

The evaluation of cardiac operations in human beings for the relief of coronary insufficiency is quite difficult. All methods seem successful if relief of pain is used as an index of success. Thompson,[21] in 1954, reported the evaluation of fifty patients who had been followed for fourteen years following operation. Ninety per cent of the patients were more than 75 per cent improved while only 10 per cent were less than 50 per cent improved. Thirty-three, or 66 per cent, of the patients were living, and, of the seventeen who died the average life span after cardiopexy was five years.

Valvular Lesions—Valvular disease of the heart is caused by acute infection, which includes the rheumatic, subacute bacterial, acute bacterial and terminal verrucose types, and rarely by tuberculosis. It is sometimes due to atheromatous and sclerotic changes, often with calcification.

Valvular disease may be so slight that there is not enough deformity to interfere in any way with cardiac function. In such cases there may be an entire absence of signs and symptoms. On the other hand, the valvular defect may be so great that it is itself the cause of cardiac enlargement and failure.

Of the four heart valves the mitral is the most commonly affected. It is damaged in well over half of all cases of valvular diseases. Aortic valve disease is next in frequency, followed by diseases of the tricuspid valve, which is but rarely deformed to any important extent. The pulmonary valve is infrequently involved.

Rheumatic heart disease associated with mitral stenosis may be a progressive, malignant disease. It is well known that patients with mitral stenosis have a previous clear cut history of mitral stenosis in only about one half of the cases. It usually takes from five to fifteen years for the clinical signs of mitral stenosis to develop in those patients with a history of rheumatic carditis. The majority of patients suffering from mitral stenosis ultimately die from its effects. Death is usually due to heart failure, peripheral embolization or pulmonary infarction.

Mitral regurgitation in contrast to the narrowed opening of mitral valve stenosis is associated with an insufficient valve. Greater interest has been shown in the diagnosis and treatment of mitral regurgitation since the advent of an effective and safe procedure for the correction of mitral stenosis. The unique opportunity of observing the dynamic pathology of mitral insufficiency in the living human being has now been provided by the technics for safe cardiac exploration. Lesions in which both stenosis and insufficiency coexist are inevitably encountered in operating upon a large series of patients with mitral valvular disease.

Aortic stenosis in its pure form or with a physiologically unimportant degree of insufficiency is not uncommon. It is more frequent in men than women and may become symptomatic at any time from the fourth to the sixth decade.

There are three forms of aortic stenosis. The earliest seen and relatively least common is congenital and may be infundibular or valvular; the next form is rheumatic in origin, while the remaining form is of arteriosclerotic origin. A whole spectrum of pathologic types ranging from pure stenosis to pure insufficiency, with all of the intervening combined types, exists in aortic as well as mitral valvular disease.

Stenosis is encountered more frequently than insufficienty in valvular disease of the tricuspid valve. Neither condition is common.

Brunton,[22] in 1902, suggested that mitral stenosis could be corrected by surgery. Experimental support of this thesis came from the work of Haecker,[23] Bernheim,[24] and Cushing and Branch.[25] Surgical technic was studied by Schepelmann[26] and later by Carrell and Tuffier.[27]

During the decade from 1920 to 1930 clinical trial of mitral valve surgery was made. The most extensive experience was that of Cutler, Levine and Beck[28, 33] who operated on seven patients of whom only the first survived. Allen and Graham,[34, 35] Souttar[36] and Priham[37] reported one case each. Of these, only Souttar's patient survived.

During the decade from 1940 to 1950 extensive cardiac surgical knowledge was evolved from World War II experiences and civilian life experiments. Many surgeons contributed in the evolution of a safe and effective technic for the correction of mitral stenosis. Foremost in this honored group are Harken, Bailey, Glover, O'Neil, Brock, Smithy and Hufnagel.

The surgical correction of mitral insufficiency at the present time is not completely satisfactory, although much ingenuity and thought have been shown in devising surgical technics for its correction. Various slings, grafts and baffles have been tried. Further experience and new technics will some day solve this perplexing problem.

Stenosis of the aortic valve has challenged the creative efforts of surgeons for decades. Tuffier[38] in 1914 made the first surgical attempt to correct aortic stenosis. He planned to insert a knife through the aorta distal to the aortic valve ring and in incise the stenotic valve, but at the time of operation this plan was changed and the aortic ring was "dilated by invaginating the wall of the aorta and pushing it through the stenotic valve with the forefinger." The amount of dilatation and invagination achieved would appear highly questionable to one familiar with cardiac surgery; nevertheless, this patient was reported as improved ten years following surgery. Smithy[39] and his associates in 1947 attacked the problem of studying the effects of transaortic and transventricular valvulotomy in experimental animals. Their work provided an invaluable background for subsequent developments. Today, aortic stenosis can be corrected surgically in human beings.

The surgical correction of aortic insufficiency has been instigated by the brilliant work of Hufnagel. His technics involve the use of a "ball-valve" prosthesis.

The tricuspid valve is much less frequently attacked by disease than the mitral and aortic valves. Tricuspid stenosis is corrected by the same technic as used in the correction of mitral stenosis.

CONGENITAL HEART DISEASE

Patent Ductus Arteriosus—The chapter on congenital defects begins with J. C. Munro[40] who proposed ligation of the patent ductus arteriosus at a meeting of the Philadelphia Academy of Surgery in 1907. This brave man was far ahead of his time, although Doyen[41] in 1913 unsuccessfully attempted to correct a congenital pulmonic stenosis with the use of a tenotome. In 1937 Streider[41] was also unsuccessful in operating upon a patient with patent ductus arteriosus and superimposed subacute bacterial endarteritis.

Matas[42] in 1920 in his extensive treatise on surgery of the vascular system did not even mention congenital defects. In 1936 Levine[43] stated in his excellent text, "There is no known treatment for congenital heart disease." With timing somewhat reminiscent of Rehn, Robert Gross[44] successfully ligated a patent ductus arteriosus in a 7 year old girl in August 1938.

Since this first successful ligation of a patent ductus arteriosus there have been thousands of operations for this condition. The ductus arteriosus normally becomes obliterated at or shortly after birth. When it remains patent, the effects upon the patient will depend to a considerable degree upon the size of the shunt. If the shunt is large, symptoms of cardiac failure may occur in early life. However, if the ductus is small, the patient may live to adult life without difficulty. In general, the life expectancy of a patient with a patent ductus arteriosus is approximately one-half that of a normal individual of similar age.

Bullock and Shapiro[45] found the average age at death was 35 years. Cardiac failure and subacute bacterial endocarditis were the most frequent causes of death.

An open ductus produces a shunt that may carry from 20 to 80 per cent of the left ventricular blood into the pulmonary artery. The consequence of such a shunt may be left ventricular hypertrophy, with or without failure, subacute bacterial endocarditis, pulmonary vascular sclerosis and pulmonary hypertension.

The risk of operation is insignificant to that of the untreated lesion. The average surgical mortality is less than 1 per cent. This would seem a small price to pay for an operation that apparently increases the patient's life expectancy from thirty-five years to the normal of about seventy years.

Coarctation of the Aorta—Coarctation of the aorta defines a mechanical obstruction of the aorta which is most often localized and located just below the origin of the left subclavian artery. The first successful operations to remove the abnormal segments were performed independently by Craaford[46] and Gross[47] in 1945.

Coarctation of the aorta was described by Morgagni[48] in 1760. Subsequently Bonnett[49] in 1903 divided this anomaly into two groups, infantile and adult. The former is found in infants, most of whom die in the first year of life. Fortunately, this type is relatively uncommon (less than 5 per cent). The adult type is a more focal area of constriction located most frequently at or just below the insertion of the ductus arteriosus. There is good reason to discard these categories and to replace them with descriptive terms such as diffuse or localized.

The clinical implications of coarctation with its attending upper body hypertension are obvious. Death may come from vascular accident or left ventricular failure. In addition, the hazards of aneurysm and bacterial endocarditis attend the local lesion.

The usually sharply localized narrowing just below the origin of the subclavian artery may be treated successfully by resection of the narrowed segment and end-to-end anastomosis of the aorta. The more diffuse areas of a coarctation may necessitate the use of the left subclavian artery. The alternate method of vascular graft has been widely used.

The diagnosis of coarctation can be established by a combination of the following findings: there is hypertension in the upper extremities, and hypotension in the lower extremities; notching of the ribs and an absent aortic knob are characteristic in the roentgenogram; the characteristic "S" sign in a barium filled esophagus is alleged

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to be helpful. Angiography and retrograde arterial cardiac catheterization are of value occasionally.

The best time for operative correction of coarctation of the aorta is between the ages of 7 and 11 when the pliable vessels are more easily anastomosed and the chances for satisfactory healing are excellent. However, surgical intervention should not be denied to older patients.

Tetralogy of Fallot—Congenital heart diseases which produce cyanosis have interested the medical profession for centuries. In Peacock's classical book published in 1886 an accurate description is given of pulmonary stenosis associated with dextroposition of the aorta. In 1888 Fallot[50] published an accurate description of a series of patients with pulmonary stenosis associated with other defects forming a syndrome which has been termed a "tetralogy." The four factors forming the tetralogy of Fallot are pulmonary stenosis or atresia, combined with dextroposition of the aorta, interventricular septal defect and hypertrophy of the right ventricle. Such patients were looked upon as medical curiosities and in general most cases of congenital heart disease were of academic interest only until Blalock and Taussig[51] of Johns Hopkins University made the excellent observation that heart disease could be relieved by surgery. In their monumental report published in 1945 they described a technic of creating an artificial patent ductus Botalli in order to improve the circulation of the lungs. Thus, impetus was given for the first time to distinguish carefully certain types of cyanotic heart disease which are amenable to correction from those that are not.

The selection of patients with tetralogy of Fallot for Blalock's operation involves consideration of many factors. The operation is best postponed until the child is 5 years of age, depending upon the seriousness of the symptoms and clinical progress.

Modifications of Blalock's original technic have been made and offer some advantage. Potts[52, 53] devised a technic for anastomosing the side of the pulmonary artery to the side of the aorta. This procedure utilizes the same principle to increase the pulmonary circulation.

Thousands of patients have been operated upon by some variation of these technics. In general, it may be stated that the formation of an extra cardiac shunt for tetralogy of Fallot may be carried out in good risk patients with an immediate mortality of less than 10 per cent and with a high degree of symptomatic relief.

Because the shunt added another abnormality to the tetralogy of Fallot, the possibility of a direct attack on the point of stenosis was long considered. In 1948 Brock[54] of England successfully initiated such an attack. The success of his operation depended upon whether the stenosis was limited solely to the pulmonary valve or involved the infundibular chamber of the heart. The evaluation of patients for a direct attack in contrast to an extra cardiac shunt is not easy. It requires angiography in addition to the usual diagnostic tests, together with direct inspection at the time of surgery. Because of these factors, the Brock technic has had a more limited use.

In 1954 a medical dream of working inside a living heart and with a clear view and at leisure was made possible by Lillehei and his three colleagues, Varco, Cohen and Warden, at the University of Minnesota Hospital. Their technic blocks the heart off from the rest of the body, by-passing blood around it. The patient meanwhile is kept alive by circulating through his body the blood from another human being's blood stream. Their technic offers great promise in the closing of interventricular and interauricular septal defects.

Pure Pulmonary Stenosis—There is a congenital lesion known as "pure pulmonary stenosis." This condition implies stenosis of the valve itself in contrast to the subvalvular or infundibular area. In this form of stenosis the interventricular septum is intact. The foramen ovale may be opened or closed. When the interauricular septum is open, severe cyanosis due to right ventricular failure and right to left shunt may lead to confusion with a tetralogy of Fallot. Successful treatment of pure pulmonic stenosis was first performed by T. Holmes Sellers. Since the report of his first remarkable case, a large number of successful operations have been reported by various surgeons.

Other Anomalies—Aortic vascular rings represent developmental anomalies of the aortic arch system. As they tend to encircle the trachea and the esophagus, they may cause symptoms from mechanical pressure or obstruction. The frequency of difficulties in feeding and of respiratory illnesses among normal infants and children accounts for the fact that the diagnosis is often overlooked. Robert Gross[47] was the first to surgically intervene for relief of symptoms for such anomalies in 1945.

The various venous anomalies of importance in cardiac surgery include an anomalous return of the pulmonary veins to the right side of the heart, double superior vena cava and so-called aneurysm of the vena cava.

SUMMARY

The vast strides made in cardiac surgery in the last few years have captured the imagination of all. Seldom in history have so many revolutionary advances been made in such a short period of time. The future has never seemed brighter. With each new advance a death blow is being dealt at man's common enemy—disease.

It is sometimes difficult to realize the intense opposition which greeted many of the most far reaching discoveries. Medicine is a most conservative profession, and rigid obedience to the accept-

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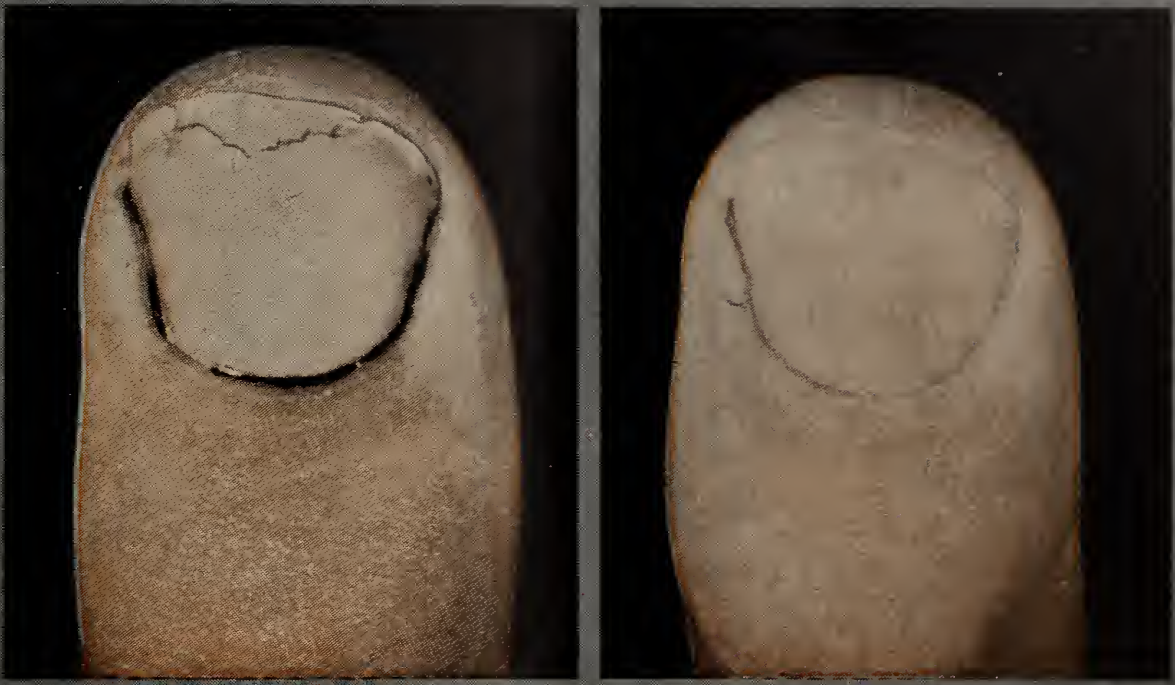

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ed teachings has often tended to delay the advance of the science.

Ferdinand Sauerbruch, a great pioneer in thoracic surgery, was called a charlatan by his chief, Von Mikulicz, when he started his experiments on the pressure chamber which was to make present day thoracic surgery possible. Needless to say, Sauerbruch was not dissuaded and Von Mikulicz later changed his mind and helped Sauerbruch in every way possible. Many other surgeons had to overcome the opposition of the profession to each new idea.

With the innovation of the sulfa drugs, antibiotics such as penicillin and streptomycin, blood transfusions, hypothermia and better anesthesia, heart surgery has continued to advance. Who knows what lies over the horizon? Today, heart surgery has reached a new peak. Tomorrow, the summit will be still higher.

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Special Article

The Health Needs of Missouri

VICTOR B. BUHLER, M.D., *Kansas City*

I AM BOTH HONORED and flattered at the invitation to be a speaker at your annual meeting—honored to appear before such a praiseworthy organization, flattered to be asked to speak on the health needs of Missouri, a subject whose complexity would seem to require a more qualified commentator than myself.

It is true that the subject is of primary interest to the Missouri State Medical Association, and that since assuming its presidency last March I have been afforded a state-wide view of the problem. It is true, however, that my conclusions as to what the state's health needs are and how they should be met are necessarily subjective and may not entirely coincide with the official views of my association.

There is a welter of opinion in Missouri as to what are the most urgent and pressing particular problems that should be solved to bring health service for all Missourians to the point it should reach in the light of the scientific knowledge of today. It is human nature to single out and give emphasis to the problems that most closely touch one's own interest.

Thus, hospital people may be rightly anxious about the serious shortage of nurses in many parts of the state. People in rural areas may be primarily concerned about the maldistribution of physicians and hospital and diagnostic facilities. Pathologists and others who are aware of the problem may see clearly the urgency of Missouri's need for a medical examiner law to revise our archaic coroner system. People of all sorts are rightly concerned with the problem of the cost of medical care and how it may be solved in a way that fits our standards of humane concern for the general welfare.

Now all these are real problems. They are problems that deserve all the thought they are receiving. But they are still not, I submit, the fundamental problem confronting the people of Missouri. And when a fundamental problem exists in any area, it is safe to say it needs to be squarely faced at the outset. To avoid it—to give first attention to secondary matters—is to invite confusion. And confusion, I fear, is one of the difficulties in Missouri at this time.

There are the widest variety of opinions as to what needs to be done first to provide good medical care for the people. But we do not have a definition of what good medical care consists of. We do not have—as Missourians—a clear definition of a doctor—what he should know, what qualifications he should have. We do not have an adequate standard by which to determine whether or not a man is fit to be licensed to care for the health of the people of this state.

In the last year, as you know, the Missouri State Medical Association sponsored legislation that would give for the future a basic assurance that practitioners licensed by the state would be qualified physicians and surgeons. The bill provided that, in the field of general health care, there would be a single license. The measure considered both doctors of medicine and doctors of osteopathy as qualified physicians and surgeons. It sought to provide a solution to a problem that has plagued Missouri for generations. It proposed to give the people the first official assurance they have ever had that persons licensed to provide general health care would be qualified to do so in the light of present day scientific standards.

In a pamphlet on the subject of the single licensure proposal, published and circulated by the Missouri State Medical Association last spring, it was stated: "If you retain a man who is not really a lawyer, it may cost you money. If you hire a man who is not really an accountant, your business affairs may get out of order. If you hire a man who is not really an architect, you may build a structure that collapses.

"But if you are sick and you go to a man who is not really a physician, you may forfeit your health —or life itself.

"If the state has only one standard by which it judges whether or not a man is competent to be a lawyer or an architect, is it not just as important to have one standard for measuring the qualifications of those who are to be permitted to diagnose and care for sickness and treat all ailments of the human body?"

This reasoning is, to me, plain common sense, but the bill which proposed the needed single standard died in committee last spring.

On behalf of MSMA I should like to thank your group for your splendid cooperation in our effort and for your endorsement of the measure. Its failure may be attributed to a general lack of understanding of its fundamental importance to the public. Even elements of the press in our state failed to grasp this significance.

What the future will hold in this connection I cannot foretell. The matter is again under study in a committee of the Council of the Medical Asso-

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Presented at the 33rd annual meeting of the Missouri Hospital Association, St. Louis, December 12, 1955.

ciation. It will again come before the House of Delegates. It is my personal deep conviction that the doctors of Missouri will continue to work for —and will ultimately see the enactment of—a measure of this sort to provide a fundamental solution to the fundamental problem of health care in our state.

If the State Medical Association has failed in this attempt to protect Missourians from inferior practitioners, the state hospital association has won a victory in the recent passage of legislation requiring minimum standards in hospitals.

After any hospitals which do not presently meet those standards have been given reasonable time and opportunity to come up to them, a patient entering a hospital anywhere in Missouri should have the assurance that that state's official requirements for his care and treatment have been fulfilled—else that hospital would not have been licensed.

On behalf of the State Medical Association I should like to congratulate the Missouri Hospital Association for this splendid legislative achievement.

While I am on the subject of hospital care I do not think it amiss to touch for a minute on the present question regarding the definition of professional and hospital services. I do not think it apart from the subject of health needs in Missouri because I believe that the quality of care given depends in large part on the continual harmonious relationship between physicians and hospital officials. I should like to repeat here the essence of some remarks I made at a recent meeting of pathologists in Chicago.

At the present time there are a number of services, traditionally recognized as medical services, that are offered by hospitals. These services include the functions performed by anesthesiologists and pathologists. These physicians have become concerned lest their identities as doctors be submerged in the corporate identity of the hospital.

What is the sensible approach to this problem? In my opinion, it must begin with a sincere desire to reach a mutually satisfactory understanding. Most hospital administrators are aware of the problem and certainly would agree to sit down and work out a solution. Administrators who have a knowledge of what is entailed in hospital services, and physicians, who know about the medical care of the patient, are certainly in a better position to reach an understanding than are courts and juries.

Undoubtedly much of our legislation governing the practice of medicine is obsolete. In Missouri our basic Medical Practice Act was enacted in 1850. Its authors could not foresee all the problems we are facing one hundred and five years later. The Hospital Association and the Medical Association have recognized the need for getting together to discuss not only these problems but any problems related to patient care.

The physician wants to maintain a recognition that all his professional functions fall definitely within the field of medical practice. If this fact is completely clear in the minds of everyone, present misunderstandings should be resolved to the mutual satisfaction of doctors and hospitals and to be of benefit to the patient. The presently functioning Joint Committee on Hospital-Physician Relations should be our means for settling all this.

I have been talking so far about what may be broadly termed as the *quality* of health care in Missouri. Let us take a look now at some other aspects of the state's health needs. The economic aspect of health care certainly deserves a large portion of our attention.

I believe it safe to say that we are well along the road to bringing medical and hospital care to Missourians through a variety of prepayment plans. More than a million persons in the state now carry Blue Cross hospitalization protection and about 750,000 are protected by Blue Shield medical programs.

If we add those persons covered by private insurance companies, totals are substantially increased. As of December 21, 1953, there were 2,680,000 persons in our state with either nonprofit or private insurance company hospitalization protection, according to the Health Insurance Council. The Council also reported that private and nonprofit insurance organizations afforded surgical protection for 2,210,000 persons, and medical protection to 1,418,000. We can be sure that these two totals—now two years old—have increased considerably since then.

It is probably safe to say that most Missourians in the middle income group have some form of health protection. Are we ready, then, to congratulate ourselves for successfully meeting the health needs of this large segment of our population? If nearly everyone who can afford ordinary medical care is now covered by some kind of health protection, does this mean we have licked the problem?

No, it does not. We are not deluding ourselves that it does. Although health insurance has had a truly miraculous growth and has brought a measure of relief to hundreds of thousands, it has not reached the point at which we can afford complacency. If I may be permitted an analogy, there are some countries where, though everyone has food, few have enough calories. In Missouri, as in other states, some people are subsisting on "low calorie" health protection.

Until now, mass enrollment has been the main objective—and rightly so. Now that we are approaching the goal of something like hospitalization coverage for everyone, with medical protection not far behind, we must turn our thoughts to remedying other deficiencies.

According to the Health Information Foundation, there is some opinion among the public that it is desirable to cover all or nearly all hospital services. But, nationally speaking, at least, the typical hospitalization plan subscriber who goes to the hospital still has to pay 11 per cent of the cost himself, and one out of five subscribers pays at least 40 per cent, according to the Foundation.

As for surgical plans, the typical subscriber pays 25 per cent of his bill out of his own pocket. And one out of three subscribers pays at least 40 per cent, the Foundation reports.

I cannot go along with the opinion expressed by some that insurance payments should in all instances cover the total hospital or medical charge. Private rooms and other optional hospital accommodations certainly should not be included in the typical low premium Blue Cross plan. To cover all the optional services offered by the hospital to patients who are disposed to pay for them would force a hospitalization plan to charge rates out of reach of the average family.

Again, doctors' fees should not be limited by the schedules set by insurance plans. Physicians should be free to charge a fair price for services. The obvious answer, it seems to me, is to substitute service type for indemnity type programs for persons with incomes below a certain level. In the Kansas City area, such Blue Cross service coverage is provided. This plan, I believe, is a realistic approach to the problem, and I should like to see similar coverage for the rest of the state. Physicians' fees in this service type coverage should, of course, reflect an average of fees normally paid by families within the income level of the plan.

One more word about medical fees. I am sure a lot of people think they are too high, without considering the fact that everything has gone up. The rising cost of all health care since the war has aroused public resentment, and much of it appears to have centered on the physician.

I should like to take a minute to go into some economic facts and to quote a few statistics because I believe they are relevant to the subject we are concerned with here—the cost of medical care and the ability of the "middle income group" to meet that cost.

No one denies that the average physician's income is higher today than it used to be. But neither would anyone deny that incomes have increased in nearly every other occupation. And why? Because prosperity (and inflation) has given people more money to pay for the products they want. For the same reason people have been buying more medical care. Dissatisfaction with medical costs arises partly from the fact that people enjoy most products they buy, but few derive pleasure from the medical care they purchase.

Dissatisfaction has arisen despite the fact that the cost of health care has not risen as much as the cost of other necessities. The U. S. Department of Labor reports, for example, that while the cost of health care increased about 75 per cent from 1939 to 1954, the cost of clothing went up 100 per cent and the cost of food soared almost 150 per cent during the same period.

Analyzing the cost of health care, according to the Department of Commerce, the physician receives only 28 cents of the nation's health dollar. Drugs take 18 cents of it, the hospital receives 26 cents, and other medical goods and services account for the balance. I do not mean to imply that people think the physician receives all this money. But they are disturbed at the cost of their total health bill, and the emotional reaction may be to pin the blame on the physician.

What does this 28 cents mean in terms of dollars in the pocket of the physician? It means that the average physician receives $3.75 an hour and works 56 hours per week to earn it. I do not think that is excessive by today's standards. I am told that a television serviceman gets $7.50 an hour for a house call.

There is a story a doctor friend of mine tells about the plumber who is a patient of his. One night a drain in the doctor's sink broke, so he went to the telephone to call the plumber. Just then, the phone rang and it was the plumber on the other end calling about his little daughter who had suddenly become ill. The plumber asked the doctor to come right away. My friend said that he would do so, but mentioned the trouble he was having with his sink and asked the plumber to come over and fix it. Both men left immediately. The plumber fixed the sink and returned home to find the doctor still treating his child. Subsequently, the doctor sent the plumber a bill for five dollars. He, in turn, received a bill from the plumber for fifteen dollars. I leave the moral of the story to you.

A doctor's earnings appear modest when the time and extent of a medical education are taken into consideration. Today, in addition to four years of medical school, one year of internship and four years of specialty training, most physicians serve a two-year hitch in the armed forces. This means the average doctor is about 32 years of age when he hangs out his shingle.

Since the average physician's occupation is a strenuous one, his life expectancy, I am told, is 57 years. The average life expectancy for all males in the U. S. is now about 69 years. Assuming an ordinary retirement age of 65, the average doctor does not even get there. His earning period is a short twenty-five years compared to the average college graduate's forty-four years. Men entering other professions are not handicapped financially by similar long periods of training. It has been estimated, for example, that the average engineer has already earned $75,000 when the physician is ready to start his practice.

It seems clear, therefore, that money cannot be the doctor's primary interest. If it were, any competent businessman could show him that he is going after it in the wrong way. The businessman would certainly point out, too, that the doctor is not helping himself by teaching without charge others who will compete against him. Nor is it sound business practice to eliminate many of the conditions that require his services by making available such miracles as insulin, penicillin, sulfa—to mention a few.

Having succumbed to the temptation to talk about doctors' incomes, I may as well go on to point out that the situation of the medical profession makes the strongest possible case for some kind of tax relief for self employed and professional persons along the lines proposed by the Jenkens-Keough bill. An employee of a corporation may have a retirement income provided for him by tax exempt dollars invested by the corporation in a retirement program. Such plans are spreading rapidly for the protection of the typical employed person in the country.

If a professional man, however, wishes to buy an annuity to support himself after retirement, he must pay the premiums out of what he has left after paying his income tax. In the case of the doctor, we have seen that his earning years are few in number, which means that income is bunched together and taxes are paid on it at a relatively high rate year by year. The result is that many men do not have the after-tax cash to provide themselves a retirement program.

So we can only come to the conclusion that medical fees cannot be considered excessive when all the facts are carefully weighed. The solution to furnishing more and better medical care to the middle income group is not to lower the physician's earnings. To do this would discourage many from entering the profession.

No, the solution obviously is to spread the cost of medical care over a wide population by means of voluntary health insurance—just as we are doing now, and to remain vigilant, as coverage increases, to every opportunity to expand the service benefits and to lower the cost of the insurance for the subscriber.

Constant study and experimentation should also be made in the direction of the individual enrollment and catastrophic coverage that must be attained if voluntary health insurance is to provide the full and adequate protection required by the middle income family.

Turning to the problem of the maldistribution of physicians, this concerns for the most part, farming communities. Helping to place physicians in the rural communities that need them has been a continuing program of the Missouri State Medical Association's Committee on Rural Medical Service. The Association office maintains a careful and detailed file of locations in need of physicians, and the information of this file is made available to all doctors seeking locations. Since the end of World War II, a total of about 600 doctors have located in outstate Missouri.

At the same time it is necessary to recognize a number of factors that discourage young doctors from continuing in rural practice. These include many times a lack of facilities adequate for present-day scientific standards. The provision of such facilities in strategic points in all parts of the state becomes increasingly important.

Other deterrents are less easy to come to grips with. Doctors are not only professional men—they are citizens, husbands and fathers like everybody else. Often they feel their families need an environment of wider scope and interest than the small rural community provides. Continuously people in all occupation groups tend toward town and city life. It may be hoped that the pleasures of country living will become more apparent to more Americans as time goes on. For the present, however, the problem would appear for the doctors and the rural population in general to find an answer to the old familiar question—"How are you going to keep them down on the farm?"

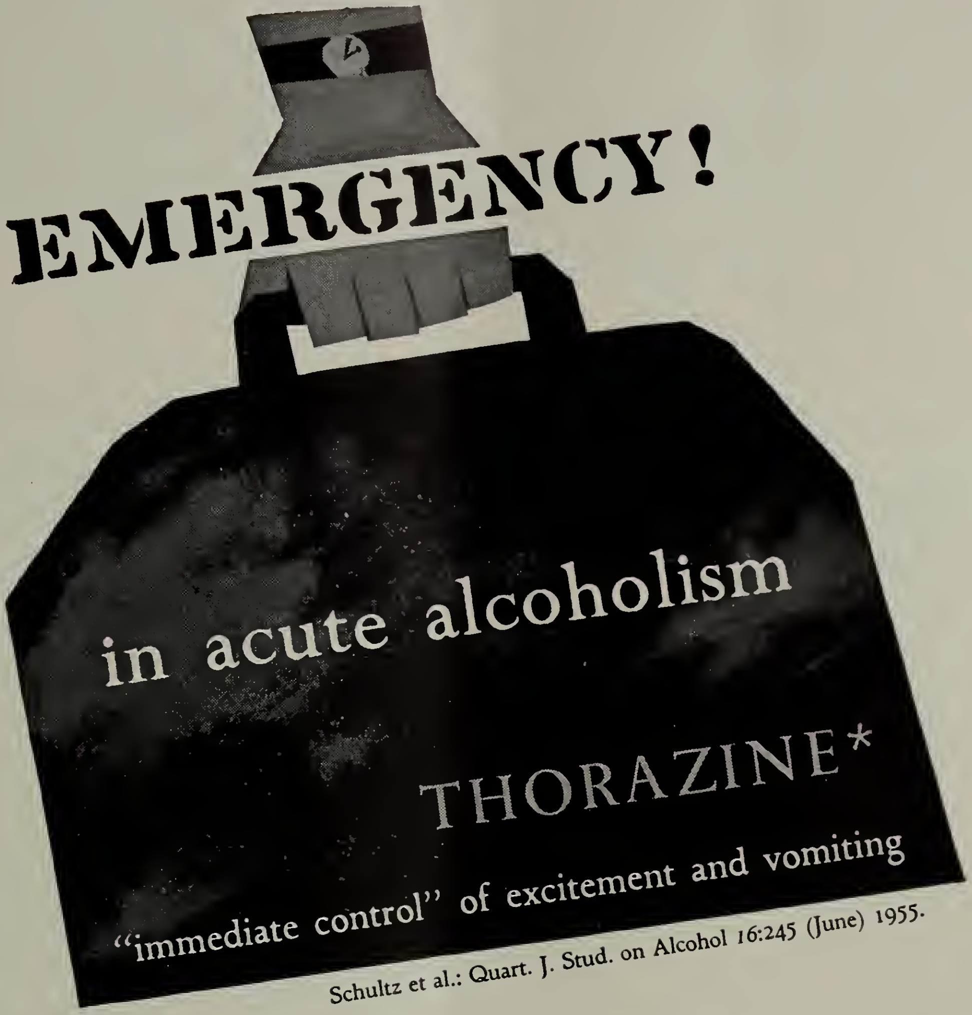
The problem of medical care for indigent and medically indigent groups is, of course, the most imposing of all. At the outset, we must realize that there is no completely satisfactory solution to the health problem of the needy. Nevertheless, the problem must be squarely faced and sincere and constant efforts made to minimize it by those of us in the health field.

Since the formation of the Missouri Health Council in 1948, we who comprise its membership have been hopeful that the Council could be instrumental in pointing the way to a solution for better meeting the health needs of Missouri's indigent and medically indigent.

The first logical step in this direction was to discover the extent of medical indigency in our state. A good start has now been made with the completion of the Council's recently published survey of twenty-seven counties, undertaken by the Institute for Research in the Social Sciences of the University of Missouri.

A state-wide committee is now being formed for the purpose of studying this survey with the executive committee of the Council. I am very hopeful that recommendations will come out of this study which will be translated into effective, remedial action.

I have enjoyed this opportunity to discuss with you a few of the many facets of the health needs of our state. They are needs whose hope of fulfillment offers one of the most challenging objectives of our time. Certainly the coordinated efforts of the Missouri Hospital Association and other health organizations will go far toward accomplishment of that goal.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Schultz et al.: Quart. J. Stud. on Alcohol 16:245 (June) 1955.

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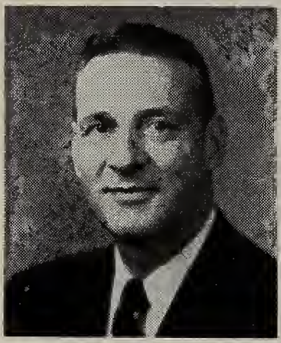
President's Page

Medical care is furnished by the government to dependents of military personnel on an "if available basis." If dependents live near a military post, they receive some medical care from military sources. It is estimated, however, that some three million dependents receive little, if any, care. Several studies have been made to determine the best answer to the problem.



The position of the American Medical Association on this question seems to be a realistic one in view of opposition to the continuation of the "doctor draft." The House of Delegates of the A.M.A. adopted the following statement in 1954:

"If it is to be the policy of the government to provide for medical care for dependents of service personnel, the services of civilian physicians and hospitals be used wherever possible, to be paid for at prevailing rates, with provision for free choice of physician."

As outlined at a meeting in Chicago, October 8, 1954, the A.M.A. believes that it is the job of the Congress to decide whether or not care for dependents of military personnel should be provided by the federal government. Such care, if authorized by Congress, should be provided by military personnel and in military facilities only in overseas areas or in the United States where civilian facilities or civilian personnel are unavailable or inadequate. In all other instances such care, if authorized, should be provided by civilian physicians in civilian facilities.

It is almost certain that legislation will be adopted by the Congress during this year. It is too early now to tell what the legislation may provide. Future actions will be reported as they appear.

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EDITORIALS

Evaluating the Teacher

Much has been said and written relative to the inadequate remuneration paid members of the teaching profession. It is generally agreed that not only are teachers poorly paid, but inconsistencies exist in respect to better pay for better teachers.

No standard or accurate method of evaluating a teacher's worth has ever been formulated. The present method of reward is largely based on hours of credit and number of college degrees the teacher may have earned by past endeavors. While educational background is, of ocurse a prerequisite to good teaching, the real art of teaching is the distinguishing factor which differentiates the good from the mediocre. Call it art, ability or interest, the individual possessing it becomes the real educator. This certain something must be rewarded if teaching is to remain a profession. Equal pay for equal hours worked, the standard of trade unions, definitely has no place in a profession in which initiative and individuality are paramount requisites. An opportunity for the more adept to move forward, a reward for personal effort and achievement, these rightfully belong to the teaching profession. How can teachers in general be evaluated and rightfully receive their just reward, a legacy enjoyed by all other professions?

In our present educational system students are rated and graded according to their efforts and abilities by their instructors. Errors and inaccurate grading do, of course, occasionally occur, but the overall method seems to accomplish its purpose.

Whether or not teachers realize it, students constantly grade them in a similar manner and, although their ratings are not a matter of record, they easily could become so and serve as a method of evaluation. Errors again would occur for obvious reasons but the general average should prove an accurate measurement of abilily. Would the teaching profession be reluctant to accept this system?

I am confident that even today I could accurately rate every professor of my medical career. I believe my rating would correspond to the average of my class, and again I am sure it would prove to be accurate.

Our future as a nation is moulded by the hands of our teachers.

Martyn Schattyn, M.D.

Unemployment Compensation Law—1956

The Federal Unemployment Tax Act requires all employers, including physicians, who employ four or more persons, to pay unemployment taxes to the federal government and to the State of Missouri.

The tax is 3 per cent of the first $3,000 of wages paid during the calendar year to each employee by an employer. However, the employer is allowed a credit against the federal tax for contributions to the state unemployment funds up to 90 per cent of the federal tax. Thus, most employers will pay a net federal unemployment tax equivalent to 3/10 of 1 per cent.

The federal unemployment tax is imposed upon employers only and should not be deducted from the wages of employees.

On or before January 31 of each year, every F. U. T. A. employer must file a return for the preceding calendar year of F. U. T. A. tax due on Form 940. (Since the tax went into effect January 1, 1956, this form must be filed not later than January 31, 1957. This should not be confused with the state form.)

If a physician is subject to this law, all who employ four or more persons, write to the nearest District Director of Internal Revenue and ask for an account number and Form 940.

This is a mutual type of law in which state and federal governments are involved and physicians are required to file quarterly returns with the State of Missouri, Division of Employment Security, Jefferson City, Missouri. The amount of the state tax is 2.7 per cent of wages paid. The tax is calculated on the first $3,000 earned by each employee.

ARE YOU ELIGIBLE?

If a physician has a minimum of four employees, he is required to pay Unemployment Compensation tax. He should contact State of Missouri, Division of Employment Security, Jefferson City, and the nearest District Director of Internal Revenue, advising both that he is now subject to Unemployment Compensation tax, that he wishes an account number and the necessary forms.

The tax then is payable quarterly to the State of Missouri, beginning April 1956, and the following July, October and January, and annually to the federal government beginning January 1957.

EXAMPLE OF STATE FORM

Missouri Unemployment Tax Return

John Doe, M.D.
123 A Street
St. Louis, Missouri

	Wages Earned
Mary Jones, January 1956 through March 1956	$ 600.00
Agnes Smith, January 1956 through March 1956	600.00
Helen Brown, January 1956 through March 1956	600.00
Doris Dee, January 1956 through March 1956	600.00
Total	$2,400.00
Tax at 2.7 per cent	$ 64.80

EXAMPLE OF FEDERAL FORM

Federal Unemployment Tax Return (Due, January 31, 1957)

John Doe, M.D.
123 A Street
St. Louis, Missouri Account Number......

	Total Wages Paid in 1956
Mary Jones	$2,400.00
Agnes Smith	2,400.00
Helen Brown	2,400.00
Doris Dee	2,400.00
Total	$9,600.00
Tax at 3 per cent	$ 288.00
Credit allowed for taxes paid to the State of Missouri (2.7 per cent of total wages)	$ 259.20
Amount owed on federal tax	$ 28.80

The State of Missouri Division of Employment Security has prepared a booklet "Is Your Business Liable for Unemployment Insurance Taxes in 1956." This may be obtained by writing the Missouri Division of Employment Security, Attention: Contributions Section, P. O. Box 59, Jefferson City.

New Members

Bennett, Joseph D., M.D., 505 Eiserman, Branson. Ozarks County.

Berg, Leonard, M.D., 4952 Maryland Ave., St. Louis. St. Louis Medical Society.

Braufman, Harvey S., M.D., 35 N. Central, St. Louis. St. Louis Country.

Brownsberger, Robert H., M.D., Appleton City. West Central Missouri County.

Burnside, Charles R., M.D., 206 North Clay, Kirkwood. St. Louis County.

Camel, H. Marvin, M.D., 630 S. Kingshighway, St. Louis. St. Louis Medical Society.

Deitchman, Robert B., M.D., 9123 Wrenwood Lane, Brentwood. St. Louis County.

Forsyth, B. Todd. M.D., 3720 Washington, St. Louis. St. Louis County.

Harkin, James C., M.D., 600 S. Kingshighway, St. Louis. St. Louis Medical Society.

Hixon, Walter S., M.D., 40 N. Florissant, Ferguson. St. Louis County.

Hobbs, George H., M.D., Jasper County Tuberculosis Hospital, Webb City. Jasper County.

Hoxworth, Gerald M., M.D., Moberly. Chariton-Macon-Monroe-Randolph County.

Liberman, David M., M.D., 457 N. Kingshighway, St. Louis. St. Louis Medical Society.

Lohr, Robert W., M.D., 40 N. Florissant, St. Louis. St. Louis County.

Magnin, Richard L., M.D., 1218 North Third, St. Joseph. Buchanan County.

Manganaro, Ross A., M.D., V. A. Hospital, Jefferson Barracks. St. Louis Medical Society.

Markivee, Carroll R., M.D., 915 N. Grand Blvd., St. Louis. St. Louis Medical Society.

Ochs, Randal N., M.D., Wheaton. Ozarks County.

Ottensmeyer, Charles D., M.D., Van Buren. Carter-Shannon County.

Popp, Carl G., M.D., 307 S. Euclid Ave., St. Louis. St. Louis Medical Society.

Reiss, Eric, M.D., 600 S. Kingshighway, St. Louis. St. Louis County.

Reitman, Stanley, M.D., 7068 Melrose Ave., St. Louis. St. Louis County.

Shen, Jerome T. Y., M.D., 4660 Maryland Ave., St. Louis. St. Louis Medical Society.

Spears, Joe L., M.D., Cabool. South Central County.

Stallard, Donald J., M.D., 902 Edmond, St. Joseph. Buchanan County.

Sweany, Henry C., M.D., Missouri State Sanatorium, Mt. Vernon. Ozarks County.

Taylor, Helen L., M.D., 5535 Delmar Blvd., St. Louis. St. Louis Medical Society.

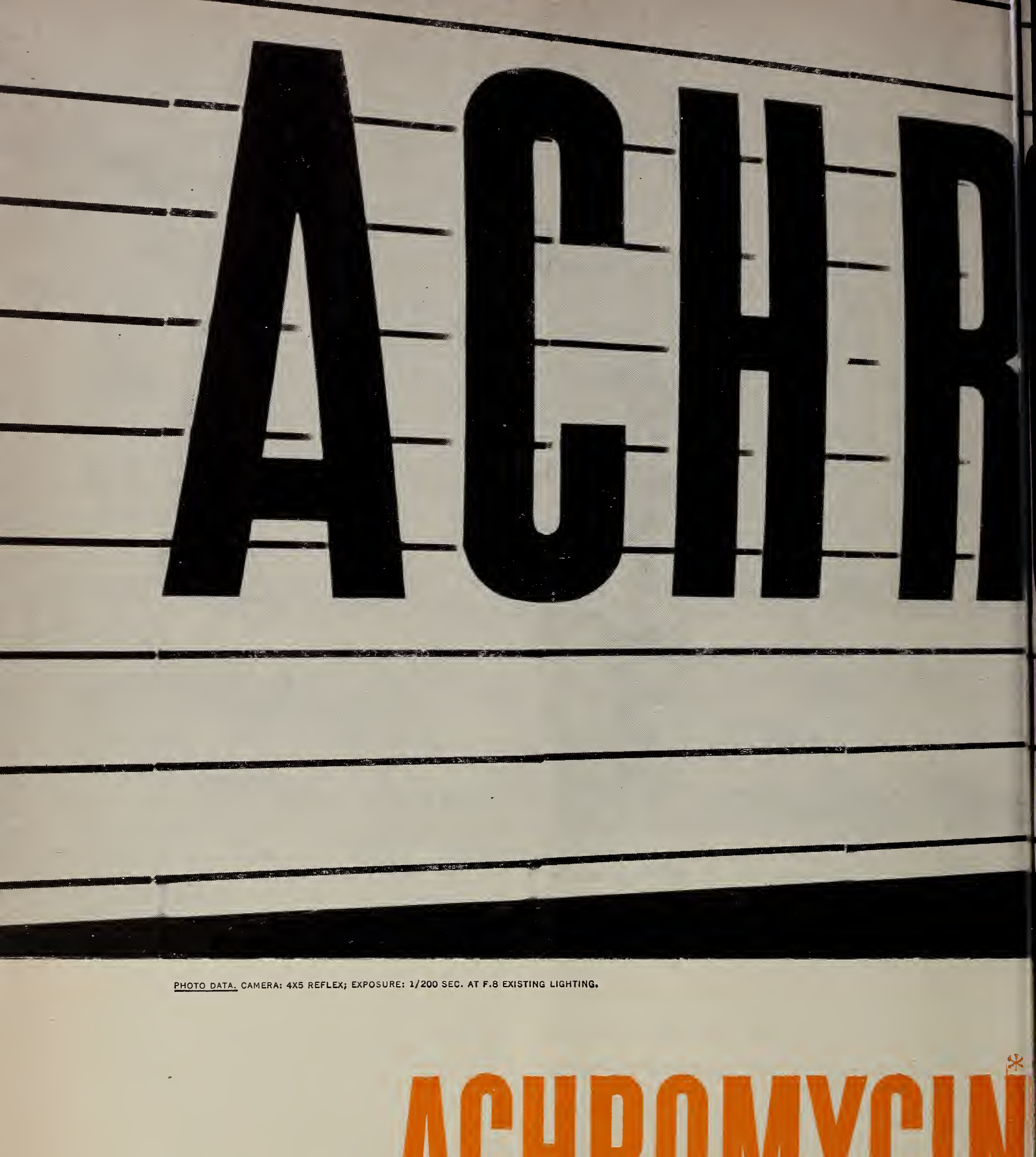
Uyeno, Frank S., M.D., State Hospital No. 3, Nevada. West Central Missouri County.

Walkup, Thomas E., M.D., 321 Frisco Bldg., Joplin. Jasper County.

Wing, Herman, M.D., 901 Washington Ave., St. Louis. St. Louis Medical Society.

Wright, Leslie H., M.D., State Hospital No. 3, Nevada. West Central Missouri County.

Yates, J. Lewis, M.D., Missouri State Sanatorium, Mt. Vernon. Ozarks County.



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News

New president of the hospital medical staff at Chillicothe is **John N. Martin**, M.D., Chillicothe.

The Women's Auxiliary to the Missouri Student chapter of the American Veterinary Medical Association heard **William See**, M.D., Columbia, speak at their meeting on November 28.

Fifty-five physicians met on December 8 in Kansas City and formed the Greater Kansas City Society of Internists. **Hubert Parker**, M.D., was named president; **James Jarvis**, M.D., president-elect; **Warren F. Wilhelm**, M.D., secretary, and **William Mundy**, M.D., treasurer.

Exhibits brought from Saudi Arabia were used by **Wallace Graham**, M.D., Kansas City, when he addressed the Greater Kansas City Dietetic Association on December 12.

The staff of St. John's Hospital, Joplin, recently elected **Eugene H. Hamilton**, M.D., Joplin, as president.

Speaker at the February 8 meeting of the Kansas City Academy of General Practice will be Dr. K. Babcock, director of the joint commission on accreditation of hospitals. Reservations are being accepted by Dr. H. C. Carrier, 315 Nichols Road, Kansas City.

At a recent meeting in Chicago of the Radiological Society of North America, **C. Edgar Virden**, M.D., Kansas City, was elected president-elect.

The American Society of Anesthesiology has appointed **Hugh Mathewson**, M.D., Kansas City, a member of its program committee.

Announcement was made in December that **Hugh W. Maxey**, M.D., Jefferson City, had been named resident physician at the Missouri Penitentiary.

A plaque in recognition of work in the poliomyelitis vaccine program in Jefferson County was presented to **Carl Rice**, M.D., Hillsboro, director of the County Health unit, on December 15.

At the annual meeting of St. Mary's Hospital, Jefferson City, on December 14, **Everett D. Sugarbaker**, M.D., was elected president of the staff. **August P. Stephan**, M.D., was elected vice president and **B. E. Watts**, M.D., secretary-treasurer. The executive committee is composed of Drs. **J. A. Ossman, Henry V. Guhleman, Jr.**, and **Earl L. Loyd**.

A grant of $13,133 for research in dengue and related diseases has been awarded St. Louis University.

Newly elected district chairman in Missouri of the American Academy of Obstetrics and Gynecology is **A. N. Arneson**, M.D., St. Louis. **Clarence D. Davis**, M.D., Columbia, is vice chairman.

The Kansas City College of Pharmacy honored **R. E. Castelaw**, M.D., Kansas City, and **D. S. Long**, M.D., Harrisonville, at a dinner on November 10 given by the alumni of the school. Both physicians were graduates of that school prior to their study of medicine.

The medical staff of the Louise G. Wallace Memorial Hospital in Lebanon, at its annual meeting on December 16, elected **George E. Fisher**, M.D., as chief of staff. **George R. Weeks**, M.D., was named secretary.

The St. Louis College of Pharmacy alumni association will present its annual award for service to medicine to **Evarts H. Graham**, M.D., St. Louis, at a meeting on February 26.

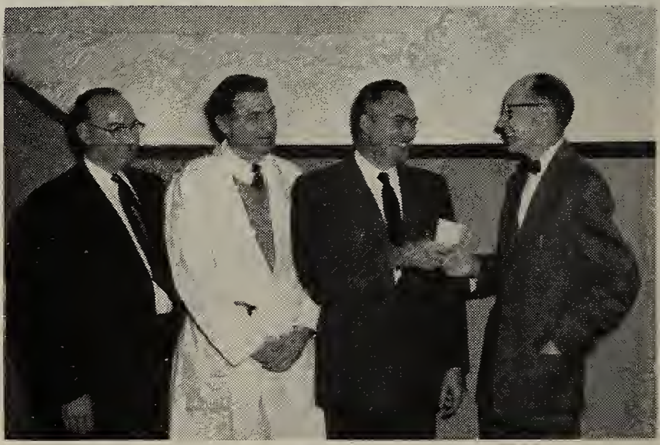
The medical staff of St. Vincent's Hospital, St. Louis, elected **Robert E. Britt**, M.D., as president at a recent meeting. **Robert Brookes**, M.D., was elected vice president, and **George H. Lawrence**, M.D., secretary.

A gift of $3,000 was given Jewish Hospital, St. Louis, recently to support research on glandular function in problems of aging.

Drugs used in psychotherapy were discussed by **Jesse D. Rising**, M.D., Kansas City, at the twelfth annual seminar of the alumni association of the school of pharmacy of the University of Kansas City on November 10.

The Sertoma Club of St. Joseph was addressed by **Roscoe L. Pullen**, M.D., Columbia, at its meeting on November 30.

UNIVERSITY OF MISSOURI RECEIVES HEART GRANT



Dr. Roscoe L. Pullen (second from right), dean of the University of Missouri School of Medicine, receives a check for $2,500 from the Cooper County Heart Association, presented by Howard Dyer (right), president. The grant is made to the School of Medicine to finance research in heart diseases and acute rheumatic fever. Looking on at the presentation are W. G. Green (left), executive director of the Missouri Heart Association; and Dr. Thomas W. Burns, assistant professor of medicine, who will direct the research.

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Missouri Medical Meetings

American Academy of Allergy, Chase Hotel, St. Louis; postgraduate review, Feb. 4-5; scientific session, Feb. 6-7-8, 1956.

Missouri State Medical Association, St. Louis, April 8-11, 1956.

St. Louis Pediatric Society—second Thursday of each month, September through May at Medart's Restaurant, 8:00 p.m.

Component Society Meeting Dates

Audrain County Medical Society—second Thursday of each month.

Barton-Dade County Medical Society—third Wednesday of each month.

Benton County Medical Society—meets only on call.

Boone County Medical Society—first Tuesday of each month.

Buchanan County Medical Socitey—first Wednesday of each month.

Butler-Ripley-Wayne County Medical Society—first Wednesday of each month.

Callaway County Medical Society—third Thursday of each month.

Cape Girardeau County Medical Society—first Monday of each month.

Chariton-Macon-Monroe-Randolph County Medical Society—second Thursday of each month September through May.

Clay County Medical Society—last Tuesday of each month.

Clinton County Medical Society—meets only on call.

Cole County Medical Society—first Monday of each month.

Cooper County Medical Society—first Monday after the 15th of each month.

Dallas-Hickory-Polk County Medical Society—first Wednesday of each month.

Dunklin County Medical Society—third Tuesday of each month.

Franklin-Gasconade-Warren County Medical Society—last Tuesday of each month at the St. Francis Hospital, Washington, at 12:30 p.m.

Grand River Medical Society (Caldwell-Carroll-Livingston, Grundy-Daviess, Harrison, Linn, Mercer, DeKalb)—second Thursday of each month.

Greene County Medical Society—fourth Friday of each month.

Henry County Medical Society—meets only on call.

Holt County Medical Society—meets only on call.

Howard County Medical Society—meets only on call.

Jackson County Medical Society—fourth Tuesday of each month execpt June, July and August, at auditorium of General Hospital No. 1.

Jasper County Medical Society—second Tuesday of each month, September through May.

Jefferson County Medical Society—meets only on call.

Johnson County Medical Society—meets only on call.

Laclede County Medical Society—second Monday of each month at 6:00 p.m., at the Louise Wallace Hospital, Lebanon.

Lafayette-Ray County Medical Society—second Tuesday of each month at 7:30 p.m., at the Victory Cafe, Lexington.

Lewis-Clark Scotland County Medical Society—meets only on call.

Lincoln-St. Charles County Medical Society—third Thursday of each month.

Marion-Ralls-Shelby County Medical Society—fourth Tuesday of each month. 7:30 p.m.

Miller County Medical Society—meets only on call.

Mineral Area County Medical Society (St. Francois-Iron-Madison-Washington-Reynolds-Ste. Genevieve)—fourth Thursday of each month.

Moniteau County Medical Society—second Thursday of each month.

Newton County Medical Society—meets only on call.

Nodaway-Atchison-Gentry-Worth County Medical Society—first Monday in February, April, October and December.

North Central Counties Medical Society (Adair-Schuyler-Knox-Sullivan-Putnam)—meets only on call.

Ozarks Medical Society (Barry-Lawrence-Stone-Christian-Taney)—second Tuesday of each month September through June.

Pemiscot County Medical Society—third Thursday of each month.

Perry County Medical Society—second Thursday of each month.

Pettis County Medical Society—third Monday each month September through May.

Phelps-Crawford-Dent-Pulaski-Maries County Medical Society—fourth Thursday of each month.

Pike County Medical Society—third Tuesday of each month.

Platte County Medical Society—meets only on call.

St. Louis County Medical Society—second and fourth Wednesday of each month.

St. Louis Medical Society—first, third and fifth Tuesday of each month October through May.

Semo County Medical Society (Stoddard, New Madrid, Mississippi, Scott)—third Wednesday of each month September through May.

South Central Counties Medical Society (Howell-Oregon-Texas-Wright-Douglas-Ozark)—fourth Wednesday of each month.

Vernon-Cedar County Medical Society—meets only on call.

Webster County Medical Society—meets only on call.

West Central Missouri Society—second Thursday of each month.

Musings of the Field Secretary

A few county medical societies over the state have attempted, and found quite satisfying, the holding of meetings with special guests invited. In some cases, these meetings have been jointly sponsored by the Woman's Auxiliaries of the societies. The special guests have included other professions such as dentists and their wives, lawyers and wives and, in other instances, lay friends of the medical society members. On all of these occasions, the medical societies have arranged programs of broad medical significance with the interests of the guests particularly in mind. Three such recent meetings come to mind.

At the November meeting of the West Central Missouri Medical Society, the dentists and lawyers of the five counties comprising the medical society were invited guests. This was a stag affair held at the Nevada Country Club and attended by thirty-eight persons from the three professions. A social hour and steak dinner preceded the formal program which presented Judge Flannigan, Carthage, who gave a number of interesting readings from what he called "Moments With the Masters."

On Thursday night, December 8, the Chariton-Macon-Monroe-Randolph County Medical Society held its seventh annual dinner meeting for members, their wives and guests, in Moberly. The guest speaker was the Honorable Morgan H. Moulder, Camdenton, Eleventh District Representative in Congress. There were 142 people present on this occasion.

The Mid-Missouri Medical Society and its ladies requested Dr. Carroll Hungate, Kansas City, Chairman of the Missouri State Medical Associa-

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AILMENTS of the adolescent . . . maladies of the middle-aged . . . ills of the old-timer . . . the medical requirements of each are different, and treatment is prescribed according to the need.

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While all Plans work together to make this coverage available nationwide, each is "tailored" to the needs of the area it serves. Every Plan is administered locally by a governing board comprising representatives of the medical profession, the hospitals, and the lay public. These people live in the area served by their Plan . . . know its needs and the facilities available. They are guided by this knowledge in establishing their Plan's benefits and rates on a realistic basis.

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tion Committee on Emergency Medical Service, to discuss "Civil Defense" at their dinner meeting in Rolla on May 26, 1955. Invited guests on this occasion included personnel from the hospitals in the area, undertakers and their wives and a number of other selected persons.

In passing, one other meeting may well be mentioned in this discussion. On Thursday night, May 19, 1955, the Marion-Ralls-Shelby County Medical Society and the corresponding Dental Society held a dinner meeting at the Mark Twain Hotel in Hannibal, having as guests their wives, their office secretaries and assistants and husbands. Mr. Stephen T. Donohue, Assistant Director of the Department of Public Relations of the A.M.A., was the guest speaker. Some seventy people attended this meeting, which included a social hour, dinner and formal program.

President Eisenhower's State of the Union Message

President Eisenhower's third message on the State of the Union was delivered by reading clerks to separate sessions of the House and Senate on January 5, 1956. The administration's detailed health program, which will be submitted to Congress in a separate message at a later date, can be expected to follow the pattern outlined in these excerpts from this message.

ARMED FORCES

In the last analysis our real strength lies in the caliber of the men and women in our armed forces, active and reserve. Much has been done to attract and hold capable military personnel, but more needs to be done. This year, I renew my request of last year for legislation to provide proper medical care for military dependents and a more equitable survivors' benefit program. The administration will prepare additional recommendations designed to achieve the same objectives, including career incentives for medical and dental officers and nurses and increases in the proportion of regular officers.

DEPENDENT MEDICAL CARE: AMA believes that dependent care, if authorized by Congress, should primarily utilize civilian facilities and civilian physicians, with care to be furnished in military hospitals or by physicians in uniform only in overseas areas or where civilian resources are inadequate.

CAREER INCENTIVES: AMA vigorously supports a career incentive program adequate to attract a sufficient number of physicians and dentists to voluntary service. Only in this manner can the necessity for some form of involuntary service be reduced.

CIVIL DEFENSE

Closely related to the mission of the defense department is the task of the federal civil defense administration. We must strengthen federal assistance to the states and cities in devising the most effective common defense.

MEDICAL DEFENSE: AMA urges greater emphasis on the medical aspects of civil defense, with adequate appropriations to permit a realistic preparation for medical emergency produced by atomic, chemical or biological attack.

SOCIAL SECURITY

Under the 1954 amendments to the old-age and survivors' insurance program, protection was extended to some 10 million additional workers and benefits were increased. The system now helps protect 9 out of 10 American workers and their families against loss of income in old age or on the death of the breadwinner. The system is sound. It must be kept so. In developing improvements in the system, we must give the most careful consideration to population and social trends, and to fiscal requirements. With these considerations in mind, the administration will present its recommendations for further expansion of coverage and other steps which can be taken wisely at this time.

EXPANSION OF OASI: AMA urges a thorough, objective and impartial study of the economic, social and political impact of Social Security, both medical and otherwise, as the sole basis for objective non-political improvements in the Act.

COVERAGE OF PHYSICIANS: AMA opposes the compulsory coverage of physicians under OASI, but does not oppose their inclusion on a voluntary basis similar to that permitted ministers.

CHILD WELFARE

Other needs in the area of social welfare include increased child welfare services, extension of the program of aid to dependent children.

AID TO DEPENDENT CHILDREN: This is a part of the Social Security Act, thorough study of which is urged as the sole basis for any further changes.

RESEARCH

The nation has made dramatic progress in conquering disease—progress of profound human significance which can be greatly accelerated by an intensified effort in medical research. A well-supported, well-balanced program of research, including basic research, can open new frontiers of knowledge, prevent and relieve suffering, and prolong life. Accordingly I shall recommend a substantial increase in federal funds for the support of such a program. As an integral part of this effort, I shall recommend a new plan to aid construction of nonfederal medical research and teaching facilities and to help provide more adequate support for the training of medical research man power.

RESEARCH GRANTS: AMA has, in the past, been a supporter of properly administered research grants.

AMA supports one-time "brick and mortar" construction grants, on a matching basis, for medical schools.

AMA has opposed "research construction" grants uncoordinated with other federal research or construction programs.

AMA opposes federal subsidies to educational facilities, when used for operation or maintenance, because of the virtual certainty of federal control of the institution.

HEALTH INSURANCE

Finally, we must aid in cushioning the heavy and rising costs of illness and hospitalization to individuals and families. Provision should be made, by federal reinsurance or otherwise, to foster extension of voluntary health insurance coverage to many more persons, especially older persons and those in rural areas. Plans should be evolved to improve protection against the costs of prolonged or severe illness. These measures will help reduce the dollar barrier between many Americans and the benefits of modern medical care.

AMA supports voluntary health insurance plans and is convinced that their rapid growth and expansion is proof of their ability to cover all risks which can be covered under an insurance principle.

AMA opposes federal reinsurance as unnecessary, unworkable except as a subsidy, and dangerous to the orderly development of sound voluntary health insurance programs.

CIVIL SERVICE

Other legislation will be proposed, including legislation for prepaid group health insurance for employees and their dependents.

AMA supports the principle of contributory health insurance, on a voluntary basis, for federal employees.

VETERANS

All of us share a continuing concern for those who have served this nation in the armed forces. The commission on veterans pensions is at this time conducting a study of the entire field of veterans' benefits and will soon submit proposed amendments.

AMA urges the provision of the finest medical care possible to veterans with service connected illness or disability, but opposes federal medical care for illness or disability unrelated to military service.

The foregoing comments do not represent the official position of the American Medical Association on specific items of legislation which may be introduced to carry out the administration's program. Such measures may be commented upon intelligently only after examination of the specific bill. The brief summary of the past position of AMA on previous measures in the same area as the President's current recommendations is furnished for background information only.

MISSOURI STATE MEDICAL ASSOCIATION

The 98th Annual Session of the Missouri State Medical Association will be held at Hotel Jefferson, St. Louis, April 8, 9, 10 and 11, 1956.

SCIENTIFIC PROGRAM

Monday, April 9, 1956, Gold Room, Hotel Jefferson

9:00 a.m. Acute Arthritis: Problems in Diagnosis and Management, J. H. Killough, M.D., Columbia.
9:30 a.m. Strengthening the Nutritional Processes During Aging, Tom D. Spies, M.D., Birmingham, Alabama.
10:00 a.m. Intermission.
10:30 a.m. Symposium on Surgery (Crystal Room).
  Management of Severe Metabolic Deficits in the Surgical Patient, William D. Holden, M.D., Cleveland, Ohio.
  The Rationale of Radical Mastectomy in the Treatment of Carcinoma of the Breast, John J. Modlin, M.D., Columbia.
  Progress in the Treatment of Lesions of the Left Colon, Richard A. Twyman, M.D., Kansas City.
10:30 a.m. Symposium on Pediatrics (Gold Room).
  Kidney Disease in Children, Henry L. Barnett, M.D., New York.
  Surgical Diseases of the Urethra and Bladder in Children, Grayson Carroll, M.D., St. Louis.
  Diagnosis of the Noncyanotic Newborn Child With a Heart Murmur, Clark W. Seely, M.D., Kansas City.
12:00 Noon Round Table Luncheon. Gold Room.
2:00 p.m. Victories or Victims: A Critique of Advances in Anemia, Claude Starr Wright, M.D., Augusta, Georgia.
2:30 p.m. Surgical Management of Some of the Common Skin Lesions Involving the Head and Neck, James F. Dowd, M.D., St. Louis.
3:00 p.m. The Diagnosis of Aural Vertigo, James B. Costen, M.D., St. Louis.
3:30 p.m. Intermission.
4:00 p.m. House of Delegates. Crystal Room. (The first meeting of the House will convene at 1:30 p.m., Sunday, April 8.)

Tuesday, April 10, 1956, Gold Room, Hotel Jefferson

9:00 a.m. Treatment of Status Asthamaticus, Stanley Hampton, M.D., St. Louis.
9:30 a.m. The Adequacy of Medical Education, Melvin A. Casberg, M.D., Solvang, California.
10:00 a.m. Intermission.
10:30 a.m. Symposium on Medicine (Crystal Room).
  Treatment of Patients With Coronary Atherosclerosis, E. Sterling Nichol, M.D., Miami, Florida.
  Indications for Mitral Valvulotomy, John J. Hammond, M.D., St. Louis.
  Congenital Heart Disease in Adult Persons, Martin J. Mueller, M.D., Kansas City.
10:30 a.m. Symposium on Obstetrics (Gold Room).
  Functional Uterine Bleeding, Leonard H. Biskind, M.D., Cleveland, Ohio.
  Bleeding Based Upon Unrecognized Pregnancy, Samuel A. Montello, M.D., Kansas City.
  Maternal Welfare Report, Joseph M. Krebs, M.D., St. Louis.
  Radiation Management of Cancer of the Cervix and Fundus Uteri, Edwin C. Ernst, M.D., St. Louis.
12:00 Noon Round Table Luncheon. Gold Room.
2:00 p.m. Epidural Hematomas as a Sequel to Head Injuries, Samuel P. Black, M.D., Columbia.
2:30 p.m. Diagnosis of the Solitary Lung Lesion, Paul Maddux, M.D., Springfield.
3:00 p.m. Renal Vicissitudes, T. Leon Howard, M.D., Denver.
3:30 p.m. Intermission.
4:00 p.m. Panel: Acute Surgical Emergencies.

Emergency Care of Chest Injuries, John R. McDaniel, M.D., Cape Girardeau.
Bleeding Ulcer or Upper Gastrointestinal Hemorrhage, John A. Growdon, M.D., Kansas City.
Obstetric and Gynecologic Emergencies, George Wulff, M.D., St. Louis.
Acute Traumatic Abdominal Injury, Virgil E. Jeans, M.D., Joplin.
Question and Answer Period.
7:30 p.m. Annual Banquet. Dr. Elmer Ellis, President, University of Missouri, speaker.

Wednesday, April 11, 1956, Gold Room, Hotel Jefferson

9:00 a.m. The Diagnosis of Congenital Anomalies of the Hip in the Newborn Child, Henry R. McCarroll, M.D., St. Louis.
9:00 a.m. Advances in Surgery of the Pancreas, Herbert C. Lee, M.D., Richmond, Virginia.
10:00 a.m. Intermission.
10:30 a.m. Panel: What's New in Medicine.
Gastroenterology Progress, Charles F. Wilson, M.D., Cape Girardeau.
Chemotherapy of Leukemia, R. O. Muether, M.D., St. Louis.
Current Concepts in the Use of Antibiotics, Llewellyn Sale, Jr., M.D., St. Louis.
New Drugs in the Treatment of the Nervous Patient, Thomas Thale, M.D., St. Louis.
Arthritis in Relation to the New Cortisone Preparations, Jack Zuckner, M.D., St. Louis.
Precautions in the Use of Hypertensive Agents, Robert Paine, M.D., St. Louis.

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Councilor District News

FIRST COUNCILOR DISTRICT

DONALD M. DOWELL, CHILLICOTHE, COUNCILOR

Grand River Medical Society

The Grand River Medical Society and its Woman's Auxiliary met December 8, 1955, at the Strand Hotel, Chillicothe. This being the Christmas meeting, the tables were beautifully decorated with candles. Seventy were present, including visitors and guests.

After a fine dinner, guests were introduced, and Dr. Victor B. Buhler, Kansas City, President of the Missouri State Medical Association, presented a paper on "Dangerous Curves Ahead," which was an excellent and interesting paper.

The Woman's Auxiliary then presented a musical program with Mrs. Ralph W. Bohnsack, Brookfield, at the piano. Mrs. Wally Nelson, Mrs. James Price and Mrs. Maurice Frain sang a number of songs. This program was well received and tremendous applause brought numerous encores.

Among the visitors was Field Secretary, Mr. Ray McIntyre, who spoke of the success of our Society and then took a number of pictures.

A number of Christmas gifts were exchanged with Dr. E. A. Duffy, Secretary, being presented a beautiful leather brief case by the members of the Society.

Dr. Watkins A. Broyles presided and expressed his appreciation for the loyalty and cooperation the members had given him the past year. He also introduced the President-elect for 1956, Dr. John R. Dixon, and 1st Vice-president, Dr. Frank R. Daley.

HANNIBAL
BOYHOOD HOME OF MARK TWAIN
36

Dr. Duffy accepts briefcase presented by the Society.

Dr. Buhler addressed the meeting.

An interested audience listened.

It was reported that all members have paid their dues for 1955.

This was a joyous meeting with everyone having a good time.

E. A. Duffy, M.D., *Secretary*

SECOND COUNCILOR DISTRICT

W. F. FRANCKA, HANNIBAL, COUNCILOR

Chariton-Macon-Monroe-Randolph County Medical Society

The Honorable Morgan N. Moulder, Camdenton, Missouri, U. S. Representative to Congress, was the guest speaker at the 7th Annual Dinner Meeting for members, their wives and guests of the Chariton-Macon-Monroe-Randolph County Medical Society on Thursday night, December 8, at the Merchants Hotel in Moberly.

There were 142 people present to enjoy the evening's fellowship and to hear Representative Moulder discuss a number of important problems facing Congress and this country. Among other things he pointed out was that much of the billions of American dollars being expended for foreign aid could better be used for the building of schools, hospitals and highways in the United States. The speaker was introduced by former State Senator Richard Chamier of Moberly.

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Consommé can be served hot with crisp croutons, or cold and jellied in shimmering peaks. Puréed vegetables folded into a well-beaten egg can be baked to a puff, or molded in gelatin. Finely chopped beef moistened with broth spreads for a sandwich—mixed with bread crumbs, it shapes into patties. Eggs can be soft or hard cooked by simmering—or scrambled in a double boiler.

Serve prettily for eye appeal—

Chopped meat can be shaped like a chop—minced chicken like a drumstick—before baking. And flaked fish in lemon gelatin looks true to nature when your patient uses a mold.

White potatoes mashed with a little broth whip up creamy and light with cottage cheese. And mashed sweet potatoes made smooth with orange juice can be baked in the orange shells.

Banana split salad may tempt your patient. For the "greens," suggest lime gelatin shredded with a fork. Add a ball of cottage cheese to the split banana and top with puréed apricots.

Rice cooked in pineapple juice, water, and sugar makes a golden dessert. And for a gay parfait—alternate layers of farina pudding with puréed plums. Then put a sparkling cube of clear jelly on top.

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At the conclusion of the meeting, the new officers for 1956 were introduced.

W. D. Chute, M.D., *Secretary*

FOURTH COUNCILOR DISTRICT

JOSEPH C. CREECH, TROY, COUNCILOR

Jefferson County Medical Society

A called meeting of the Jefferson County Medical Society was held Friday night, December 16, in Dr. Senn's office, Herculaneum. The following members were present: Drs. E. J. Senn, Karl McKinstry, R. Waldo Edwards, Charles E. Fallet and John F. Rutledge. Excused absences were B. Bolgar and R. H. Donnell. Dr. Senn, president, presided.

Mr. Robert Brunett, administrator of the St. Louis Regional Center of the American Red Cross Blood Bank Program, and J. W. Collier, Chairman of the Jefferson County Blood Program, discussed their problems in some detail. Under their program, any resident of Jefferson County can obtain blood to replace blood transfusions in any hospital in the United States, provided a certain percentage of the population of Jefferson County act as donors each year. After some discussion, our Society unanimously endorsed their program, agreed to participate personally whenever possible, and promised to help recruit donors.

The scientific program was presented by Dr. Alfred I. Sherman, St. Louis, of the Department of Obstetrics and Gynecology of the Washington University School of Medicine. His subject was "Cancer Detection of the Cervix as a Routine Office Procedure." He went into some detail describing the technic of performing biopsies and obtaining Papanicolaou smears, and of the handling of the specimens afterward. This talk was in line with the current program of the Missouri Cancer Society, Missouri State Medical Association and Missouri Academy of General Practice, organizations which are trying to make each doctor's office a cancer detection center. Dr. Sherman's presentation was most interesting and helpful.

The present officers were reelected to serve another year.

John F. Rutledge, M.D., *Secretary*

FIFTH COUNCILOR DISTRICT

J. LOREN WASHBURN, VERSAILLES, COUNCILOR

Audrain County Medical Society

The Audrain County Medical Society held its regular monthly meeting on December 19, 1955, in the cafeteria of the Audrain County Hospital, beginning with dinner at 7:00 p.m.

This was a business meeting with no scientific program scheduled. The meeting was called to order by Dr. Ben Jolly. Minutes of the previous meeting were read and approved. The financial report for the year ending 1955 was submitted by Dr. T. L. Dwyer, secretary-treasurer, and approved. Dr. Dwyer announced that all members have paid both county and state society dues for 1956.

Under old business, the matter of medical fee schedules was again discussed. A few members have not, as yet, turned in their schedules so that they may be compiled with the schedules of other members and later submitted and discussed at a regular meeting of the county society.

A motion was introduced and passed to have the regular monthly county meeting changed from the third Monday evening of each month to the second Thursday evening of each month to coincide with the regular monthly meeting of the hospital.

The following officers were elected for 1956: President, Dr. Glenn Kallenbach; vice-president, Dr. Harold Lankford; secretary-treasurer, Edgar S. Wallace; delegate to the Missouri State Medical Association, Dr. Ben Jolly; alternate delegate to the MSMA, Dr. J. Frank Jolley; Board of Censors, Dr. Harry F. O'Brien for three years with Dr. T. L. Dwyer and Dr. Ernest Gantt holding over. All of the officers listed are from Mexico.

The attendance at the meeting was fourteen.

T. L. Dwyer, M.D., *Secretary*

SIXTH COUNCILOR DISTRICT

C. G. STAUFFACHER, SEDALIA, COUNCILOR

West Central Missouri Medical Society

Dr. Paul L. Barone, Medical Superintendent of State Hospital No. 3 at Nevada, and members of his staff presented the formal program at the December 8 meeting of the West Central Missouri Medical Society in Harrisonville.

Dr. Barone and his group discussed "Our State Hospitals, Past and Present" with particular references to recent improvements, recent legislative acts and prospects for the future.

The evening festivities began with social refreshments and then a turkey dinner with all the trimmings. The final portion of the evening's program was the election of society officers for 1956. The society president will be Dr. Carter Luter of Butler, vice president, Dr. Edward S. Jones, Harrisonville, and the secretary, Dr. Louis P. McCann.

Forty-two doctors and wives were in attendance.

A. L. Hansen, M.D., *Secretary*

EIGHTH COUNCILOR DISTRICT

W. S. SEWELL, SPRINGFIELD, COUNCILOR

Ozarks Medical Society

On Tuesday night, December 13, the Ozarks Medical Society and its Woman's Auxiliary held its Christmas meeting at the State Tuberculosis Sanatorium in Mount Vernon.

Special guests on this occasion were Dr. Roscoe L. Pullen and Mrs. Pullen, of Columbia, and Dr. and Mrs. W. A. Sodeman, also of Columbia.

After all present had met the guests, dinner was served at the Sanatorium.

The formal program of the evening, which was jointly sponsored by the Missouri Academy of General Practice and the University of Missouri Medical

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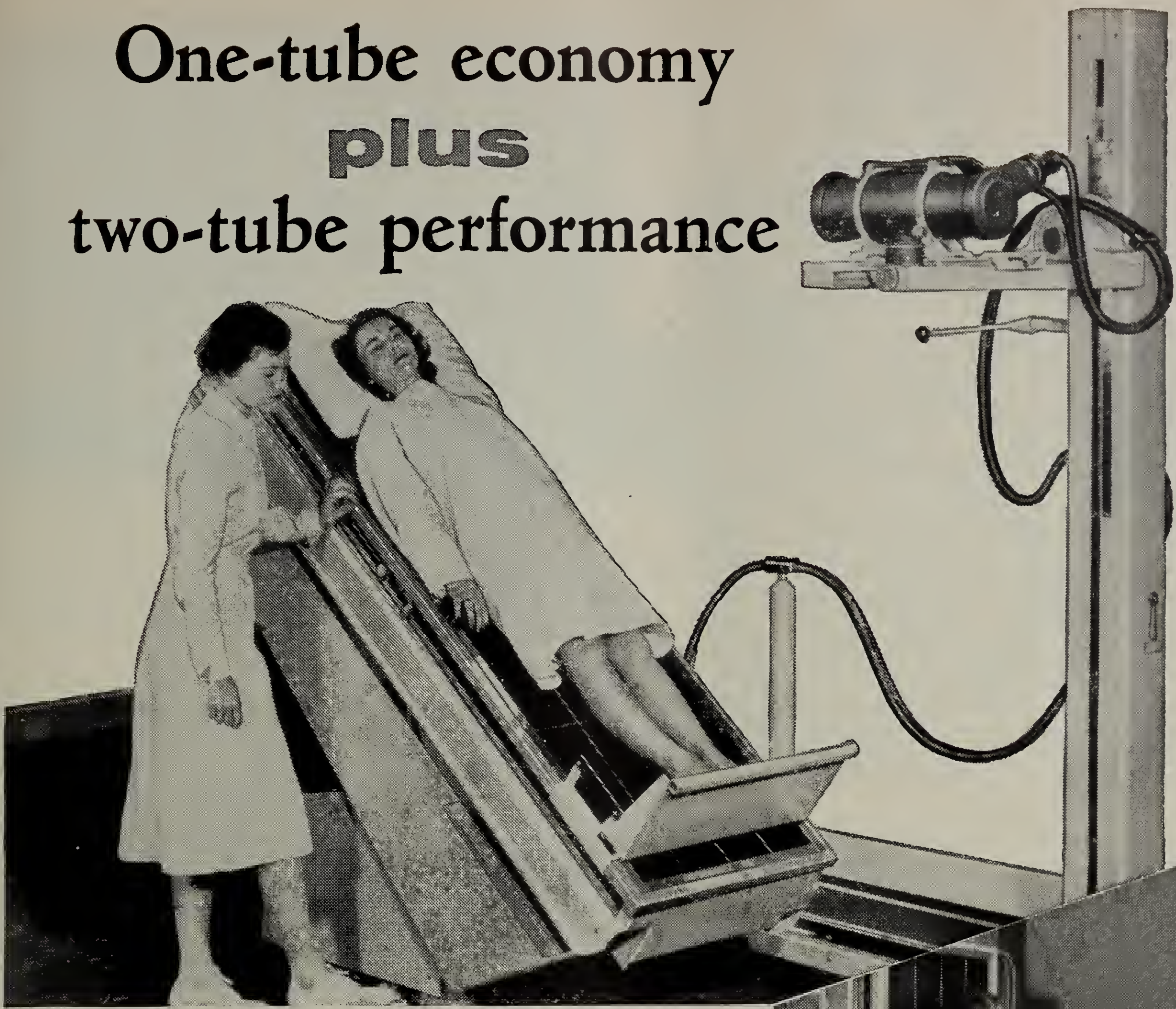

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School, was as follows: Roscoe L. Pullen, M.D., Dean, Medical School, University of Missouri, discussed "Progress of Missouri University School of Medicine and University Hospitals." W. A. Sodeman, M.D., Columbia, Professor and Chairman, Department of Medicine, University of Missouri, spoke on "Problems in the Treatment of Congestive Heart Failure."

This meeting was well attended by the Society members and their wives, and all were honored to meet our guests.

L. T. Taylor, M.D., *Secretary*

NINTH COUNCILOR DISTRICT

J. H. SUMMERS, LEBANON, COUNCILOR

South Central Counties Medical Society

The South Central Counties Medical Society met for dinner December 28, 1955, at the K & J Cafe in Willow Springs with the following members and visitors present: Dr. and Mrs. Nevins, Mountain View; Dr. Ames and Dr. Denney, Mountain Grove; Dr. and Mrs. Kelley, and Dr. Burns, Houston; Dr. and Mrs. Perkins and Dr. and Mrs. Miller, Willow Springs; Dr. and Mrs. Fowler, and Dr. and Mrs. Smith and Dr. and Mrs. Wiles, West Plains, and Dr. and Mrs. O. B. Crawford, Springfield.

After dinner, Dr. Miller took the ladies to his home for the evening, and the doctors went to his office for the program.

The meeting was called to order by Dr. Wiles, acting president, and turned over to Dr. Crawford who spoke on "Anesthesia." He presented this subject in a most interesting and practical light.

The minutes of the last meeting were read and approved, and the election of officers was taken up with results as follows: President-elect, Dr. Wiles, took over as president, and A. T. Walker was chosen president-elect; Dr. A. C. Ames was reelected secretary-treasurer; M. L. Fowler was chosen censor for three years. Censors holding over are Garrett Hogg, Jr., for two years, and Rollin H. Smith for one year; Delegates and alternates were chosen as follows, the first of each pair being delegates: for Howell County, Rollin H. Smith and J. N. Wiles; for Oregon County, C. W. Cooper and A. T. Walker; for Texas County, Garrett Hogg, Jr. and J. L. Spears; for Wright County, R. W. Denney and S. W. Connor; for Ozark County, Deborah Doan and (none); for Douglas County, M. C. Gentry and (none).

The meeting adjourned to meet in West Plains the fourth Wednesday in January.

A. C. Ames, M.D., *Secretary*

Mid-Missouri Medical Society

R. O. Muether, M.D., St. Louis, discussed "Medical Emergencies" at a dinner meeting of the Mid-Missouri Medical Society and its Auxiliary in Rolla, Thursday night, December 15.

There were thirty-six doctors and wives present to hear this interesting talk.

Following the scientific program, which was presented under the auspices of the Missouri Academy of General Practice, a business meeting was held which included the election of officers for 1956.

The program was presented following dinner.

M. K. Underwood, M.D., *Secretary*

TENTH COUNCILOR DISTRICT

BEN M. BULL, IRONTON, COUNCILOR

Mineral Area Medical Society

John Hammond, M.D., St. Louis, gave the scientific program at the meeting of the Mineral Area Medical Society at the State Hospital in Farmington, Thursday night, January 5.

Dr. Hammond spoke on "Coronary Occlusion."

After conclusion of the scientific discussion, a number of society business matters were presented and discussed.

C. E. Carleton, M.D., *Secretary*

DEATHS

James, Joseph D., M.D., Springfield, a graduate of Barnes Medical College, St. Louis, 1910; honor member of the Greene County Medical Society; aged 79; died December 5.

Briegleb, Charles F., M.D., Bellaire, Texas, a graduate of the University of Missouri School of Medicine, 1895; honor member of the Franklin-Gasconade-Warren County Medical Society; aged 87; died December 7.

Griffith, George W., M.D., Kansas City, a graduate of Northwestern University School of Medicine, 1922; member of the Jackson County Medical Society; aged 58; died December 15.

Miller, Eugene A., M.D., St. Joseph, a graduate of Ensworth Medical College, 1914; honor member of the Buchanan County Medical Society; aged 68; died December 16.

Pyrtle, James Robert, M.D., Centerville, a graduate of the National University of Arts and Sciences, 1918; member of the Mineral Area County Medical Society; aged 71; died December 18.

Cameron, Solon, M.D., St. Louis, a graduate of the Barnes Medical College, 1903; honor member of the St. Louis Medical Society; aged 75; died December 20.

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Clinically, the potency of BUTAZOLIDIN is reflected in the finding that 57.6 per cent of patients with rheumatoid arthritis respond to the extent of "remission" or "major improvement."[2]

Long-term study has now shown that the failure rate with BUTAZOLIDIN in rheumatoid arthritis, and particularly in rheumatoid spondylitis, is significantly lower than with hormonal therapy.[3]

(1) Payne, R. W.; Shetlar, M. R.; Farr, C. H.; Hellbaum, A. A., and Ishmael, W. K.: J. Lab. & Clin. Med. 45:331, 1955. (2) Bunim, J. J.; Williams, R. R., and Black, R. L.: J. Chron. Dis. 1:168, 1955. (3) Holbrook, W. P.: M. Clin. North America 39:405, 1955.

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Council Meeting

The Council met at the Sheraton Hotel, St. Louis, December 11, 1955, with W. S. Sewell, M.D., Springfield, Chairman, presiding. Those present were Drs. Sewell, Donald M. Dowell, Chillicothe; W. F. Francka, Hannibal; R. O. Muether, St. Louis; Joseph C. Creech, Troy; J. Loren Washburn, Versailles; C. G. Stauffacher, Sedalia; Richard H. Kiene, Kansas City; J. H. Summers, Lebanon; Ben M. Bull, Ironton; Victor B. Buhler, Kansas City; Carl F. Vohs, St. Louis; E. Royse Bohrer, Jefferson City; Jerome I. Simon, St. Louis; Durward G. Hall, Springfield; Joseph C. Peden, St. Louis; Eugene Robichaux, Excelsior Springs; T. E. Sanders, St. Louis; Messrs. John Buckner, Springfield; Lemoine Skinner, Sol Gross, Jordan Singleton, Ray McCarthy, Hollister Smith, Ray McIntyre, T. R. O'Brien, St. Louis.

FORD AND CHRYSLER REPLIES

Replies from the Ford and Chrysler Corporations to a letter regarding safety devices in connection with the automotive industry were read. The Chrysler Corporation asked for the name of the chairman of the Committee on Fractures in order to keep in touch with that Committee.

STATE CHAMBER OF COMMERCE

On motion of Dr. Dowell, it was voted to continue membership in the Missouri State Chamber of Commerce.

"HUMBLEST OF PATIENTS"

A plaque printed by the Society for Medical Research on comparison of medical abilities of today with those of former years, was presented. It was stated that the reprint would appear in the January issue of MISSOURI MEDICINE.

A.M.A. CLINICAL SESSION

Drs. Peden and Hall reported on the Boston session of the A.M.A., pointing out resolution opposing H.B. 7225; request to states to poll membership on wishes on Social Security for the Board of Trustees; resolutions on medical practice; accreditation of hospitals; general practitioners in relation to hospital staffs; setting up of a committee to guide mediation or grievance committees of states; objection to separating any branch of medicine into technical and medical, as pathology; recommendation that the State Journal Advertising Bureau be separated from the A.M.A.; the 1958 session to go to Minneapolis; proposed revisions of medical ethics; the Iowa suit decision being received during the session; report of the Sears Roebuck Foundation on work of establishing medical facilities in remote sites.

FIELD SECRETARY'S REPORT

Mr. McIntyre reported the following meetings since the last Council meeting: Missouri Health Council, October 31; Jefferson County, Nov. 1; Clay County, Nov. 3; Committee on Tuberculosis, Nov. 6; Aurora, Nov. 8; Joplin, Nov. 9; Nevada, Nov. 10; Missouri Heart Association at Camdenton, Nov. 10 and 11; Sedalia, Nov. 16; Columbia, Nov. 17; Pike County, Nov. 22; Franklin-Gasconade-Warren, Nov. 29; Committee on Conservation of Eyesight, Dec. 1; Chillicothe, Dec. 8; and called attention to the Missouri Hospital Association meeting in St. Louis Dec. 12-14; and a meeting at Rolla on Dec. 15.

He reported that the survey of the medically indigent had been completed and the report would be studied by an advisory committee and the executive committee of the Missouri Health Council at a meeting on January 8, and that the Committee on Rural Medical Service of the Association would meet on January 22 to study the report of this advisory committee. He gave the personnel of the advisory committee as follows: Dr. James R. Amos, Jefferson City; Mrs. Jess Bowman, Fairfax; Dr. D. W. Bryant, Kansas City; Dr. James W. Colbert, Jr., St. Louis; Mr. Rudolph T. Danstedt, St. Louis; Mr. Hubert Harris, Jefferson City; Miss Bertha Hochuli, Columbia; Miss Susan Jenkins, Kansas City; Mr. A. Clifford Jones, Clayton; Mr. Harry E. Panhorst, St. Louis; Dr. Wallace M. Pearson, Kirksville; Dr. Roscoe L. Pullen, Columbia; Dr. A. E. Spelman, Smithville; Mr. Morris Thompson, Kirksville; Mr. Frank W. G. Wheeler, Springfield.

H.R. 7225

Attention was called to the resolution passed by the A.M.A. opposing H.R. 7225, a letter Dr. Hess is writing to all members, and to the articles which have been carried in MISSOURI MEDICINE. A breakfast given by the Association for Representative Thomas B. Curtis, during the Boston session and to which A.M.A. officials came and conferred with Representative Curtis, was reported.

TREASURER'S REPORT

Dr. Simon gave the report of the Treasurer, showing that the activities of the Association were within the 1955 Budget.

REPORT OF COMMITTEE ON CONSERVATION OF EYESIGHT

Dr. Sanders, acting chairman of the Committee, reported on a meeting of the Committee, at which the relationship of ophthalmologists, optometrists and dispensing opticians was discussed, pointing out that resolutions adopted by the national optometrists' Association appeared to indicate a desire to restrict ophthalmologists from refraction and prevent opticians from the making of lenses and fitting glasses; also to enter the field of pathology of the eye. A bill in the last Missouri legislature was reviewed, attention being called to the original broadening of the definition of optometry. It was pointed out that while this bill failed to pass, others will probably be introduced in future sessions. The Committee recommended to the Council, on the letter from the Missouri Optometric Association requesting a meeting with the Council and which was referred to the Committee, that a subcommittee of the Committee selected by the Chairman of the Council, together with the President and Executive Secretary of the Association, meet with the organization.

On motion of Dr. Vohs the report of the Committee was accepted.

On motion of Dr. Muether, it was voted that the recommendation of the Committee to meet for exploration of mutual problems be approved.

VA HOSPITAL REMOVAL FROM EXCELSIOR SPRINGS

Dr. Robichaux presented a resolution adopted by the Clay County Medical Society opposing the closing of the VA Tuberculosis Hospital at Excelsior Springs, on the premise that tuberculosis cases should be treated there releasing other beds in other hospitals for much needed psychiatric care. After discussion, it was felt that the Council, while sympathetic, did not have the power to take action, it being both a local and a national problem, but not a state problem. The Society was commended for its alertness in the situation.

BUDGET

Dr. Simon, chairman of the Committee on Budget, presented the following budget, with the recommendation that the dues of the Association would have to be raised in view of the increased activities connected with the single licensure bill and the increase in number of meetings that it would cause.

Salaries	$ 42,180.00
Journal Expense	31,300.00
Postage, Printing & Stationery	5,000.00
Travel, Executive Secretary	1,300.00
Travel, Field Secretary	2,800.00
Telephone & Telegraph	1,800.00
Office Rent & Light	3,200.00
Meetings, Committee Expense	25,800.00
Defense	500.00
Scientific & Postgraduate Work	1,000.00
Woman's Auxiliary	1,200.00
Public Relations	7,500.00
Insurance Annuity	2,700.00
General Expense	2,500.00
Furniture & Fixtures	500.00
Social Security Tax	600.00
Legal Expense	2,200.00
Total	$132,080.00

Dr. Bohrer moved that the Council recommend to the House of Delegates that the dues be raised $10.00 for 1957 and on vote this was passed.

CIVIL DEFENSE

A letter from Dr. Hungate suggesting that the Committee on Defense be made a permanent committee was read. On motion of Dr. Vohs it was voted to refer this to the Committee on Constitution and By-Laws for submission to the House of Delegates.

IOWA SUIT

The Iowa suit was discussed briefly, it being pointed out that the decision indicated both facts and law in favor of physicians; that the hospitals may take the suit to the Supreme Court; that it may have some effect on the Blue Cross and Blue Shield coverages.

NEXT MEETING

It was decided that the next meeting of the Council would be set for about three weeks before the Annual Session.

W. S. Sewell, M.D., *Chairman*

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potentiated by the best of the new . . .	METICORTEN	0.75 mg
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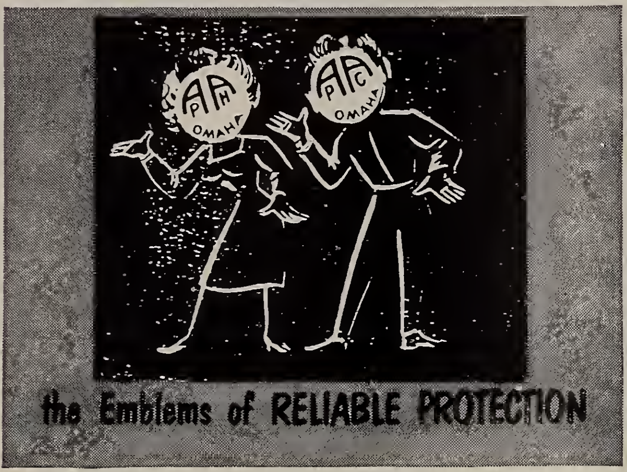
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MEDICAL TECHNOLOGISTS TO MEET

Approximately one hundred members of the Missouri Society of Medical Technologists will attend its 9th annual meeting at the Jefferson Hotel, St. Louis, April 8-11, in conjunction with the meeting of the Missouri State Medical Association. Scientific papers on isotopes, virology, blood banking, bacteriology and related subjects will be presented by doctors and medical technologists well known in their fields. The program will also include panel discussions and workshops.

Sister Ann Marie Skinner, R.S.M., assistant director of St. John's Hospital School of Medical Technology, St. Louis, and president-elect of the organization, is general chairman of the meeting. Technologists from various hospitals and laboratories in St. Louis serving on the arrangements committee include: program chairman, Audrey Murphy, of the St. Louis Clinical Pathological Laboratory; problem clinic, Genevieve Wood, of the St. Louis City Hospital; speakers' supplies, Lu Mims, of Deaconess Hospital; registration, Rose Rita Schmidt, of Firmin Desloge Hospital; entertainment, Catherine Frei, of Veterans Hospital; publicity, Bernice Koster, of Barnes Hospital; transportation, Ann Sommer, of St. Louis County Hospital; hematology seminar, Victoria Kirchoff, of Washington University; Sisters' hospitality and entertainment, Sister Maureen Clare Kolb, St. Mary's Hospital, St. Louis.

Officers of the Missouri Society of Medical Technologists, in addition to Sister Ann Marie, are Mrs. Helen Dawes, Kansas City, president; Joan Dexter, Kansas City, treasurer; and Mercedes Barry, Kansas City, secretary. Members of the Board of Directors are Sister Ann Cecelia Brennan, Kansas City; Sister Martin Mary Fruchtl, Kansas City; and Bernice Koster, St. Louis. Dr. Russell Kerr, Kansas City, and Dr. Hollis Allen, St. Louis, are advisers for the group.

COURSE IN COMMON NEUROLOGICAL SYNDROMES

A course in the more common neurological problems will be presented for general practitioners by the American Academy of Neurology in St. Louis, on April 25. This one day course has been authorized by and has the wholehearted support of the American Academy of General Practice. It has been evaluated at six hours credit in Category II.

Diseases of the nervous system implicated a large segment of the population and there has been a tremendous accumulation of literature, most of it published only in neurological journals, covering some of the newer aspects of the diagnosis and treatment. "Common Neurological Syndromes" will cover most of the problems with which the general practitioner is confronted and emphasis will be on the clinical and therapeutic aspects. The formal lectures will cover such subjects as headaches, strokes, convulsive states, the Parkinsonian state, neurological emergencies, metastatic carcinoma to the central nervous system, common disorders of muscles, peripheral nerve lesions, weakness of the lower limbs, neurosyphilis in the post penicillin era, neurological manifestations of the blood dyscrasias, and treatment of infections of the central

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nervous system. Recognized authorities on these subjects will be selected, as lecturers, from the membership of the American Academy of Neurology. The evening will be reserved for two question periods, one devoted to the subjects presented during the day, and the other to any neurological subject.

The enrollment fee for Common Neurological Syndromes is $10.00 and application for membership should be directed to Mrs. J. C. McKinley, executive secretary, American Academy of Neurology, 3501 East 54th Street, Minneapolis 17, Minnesota. The fee should accompany the application. Refund of fees, for those who later discover they cannot attend, is possible up to April 1. To provide adequate seating and acoustic facilities, it is necessary for the committee on arrangements to have reasonably early knowledge of the number that will attend. It is therefore important that those who intend to enroll do so as early as possible.

In addition to the course on Common Neurological Syndromes, which is oriented for the general practitioner, the American Academy of Neurology will present nine one day courses April 23 to 25 inclusive. These courses, neuropathology, neurochemistry, neurophysiology, electrodiagnosis, neurological diseases of infancy and childhood, injuries to the central nervous system, extra-pyramidal disorders, infections of the nervous system and convulsive disorders, though still emphasizing clinical and therapeutic aspects, will go into greater detail and will be oriented for the neurologist. Any general practitioner wishing to do so, may enroll for attendance in any one or more of these courses. For further information about these courses, write the executive secretary.

Washington, D. C., News

Congress Convened January 3, Many Health Bills Pending

The second session of the 84th Congress opened January 3 in an election charged year that promises considerable activity in the health field. While neither of the major committees concerned with medical bills (House Interstate and Senate Labor Committees) has yet scheduled hearings, other committees have been busy. The Senate Judiciary subcommittee headed by Senator Price Daniel (D., Texas), is about ready to make a preliminary report on the narcotics problem. A House Ways and Means subcommittee in charge of Rep. Hale Boggs (D., Louisiana) also is working on a parallel report covering barbiturates and possible control legislation.

Of all committees touching on the health field, none will be busier than the House and Senate appropriations subcommittees which handle the annual budget requests of the Department of Health, Education and Welfare. HEW Secretary Folsom already has announced the administration will ask for a 25 to 30 per cent increase in money for medical research, with most of the increase going to non-federal projects. This proposal is certain to receive strong bipartisan support.

On some other proposals, bipartisanship might evaporate as both parties seek credit for popular legislation. Included could be federal construction aid to medical schools and to private research laboratories. The administration contemplates introduction of a bill combining both features.

SALK VACCINE GRANTS

States now are drawing on a $30 million federal appropriation for the purchase of Salk poliomyelitis vaccine. This authorization expires February 15. The administration will ask for an extension and for another appropriation.

JENKINS-KEOGH BILL

This bill, authorizing deferment of income tax on money paid into a retirement fund, was ordered reported favorably by the House Ways and Means Committee on the final day of the last session, after it was combined with other tax amendments.

CASH PAYMENTS FOR DISABILITY

This house-passed bill is pending before the Senate Finance Committee. Chairman Byrd has said that extensive hearings will be held on this proposal (a part of H. R. 7225), but not until several other highly controversial issues have been disposed of.

MILITARY STATUS FOR PUBLIC HEALTH SERVICE

This bill passed the Senate and now is pending before the House Interstate and Foreign Commerce Committee; it has the support of the American Medical Association.

FEDERAL WORKERS' HEALTH INSURANCE

The administration expects to have a revised bill ready shortly and hopes for action in 1956.

MEDICAL CARE PROGRAM FOR MILITARY DEPENDENTS

Defense Department is working with the insurance industry on an indemnity plan and at the same time with Blue Cross and Blue Shield on service plans. As a result of these discussions, the department hopes to have all the necessary information ready by the time hearings start.

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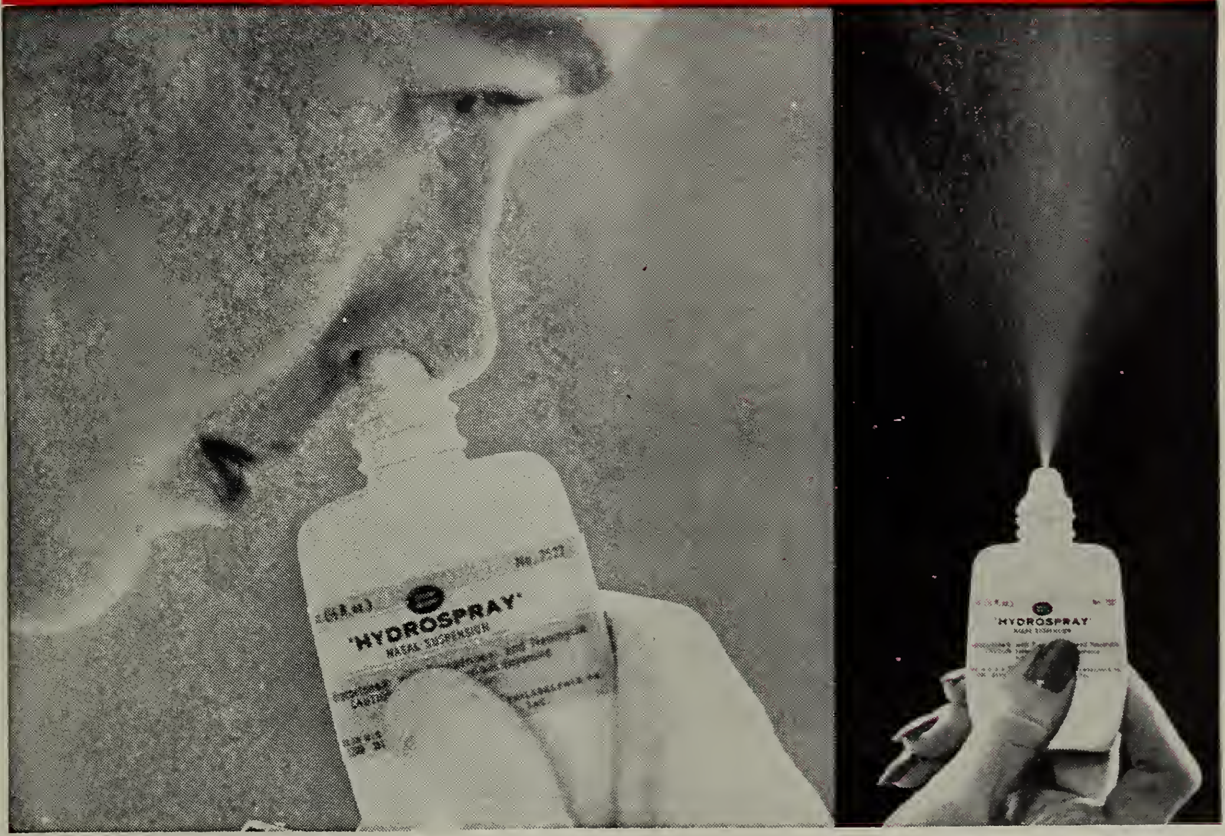
MAJOR ADVANTAGES: New synergistic anti-inflammatory, decongestant and antibacterial formula. High steroid content assures effective response.



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SUPPLIED: In squeezable plastic spray bottles containing 15 cc. HYDROSPRAY, each cc. supplying 1 mg. of HYDROCORTONE, 15 mg. of PROPADRINE Hydrochloride and 5 mg. of Neomycin Sulfate (equivalent to 3.5 mg. of neomycin base).

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REFERENCE: 1. Silcox, L. E., *A.M.A. Arch. Otolaryng.* 60:431, Oct. 1954.

News From the Medical Schools

SAINT LOUIS UNIVERSITY

Thirty-five physicians from throughout the State of Missouri attended a Postgraduate Course in Cardiac Auscultation presented December 1 at Firmin Desloge Hospital by the Department of Cardiology of St. Louis University School of Medicine. The course covered congenital, rheumatic, hypertensive and arteriosclerotic heart disease as well as functional heart sounds and murmurs. It was cosponsored by the Missouri Division of Health, Missouri State Medical Association, the Missouri Academy of General Practice, Missouri State Heart Association and the St. Louis Academy of General Practice.

The course was under the general direction of Dr. James G. Janney, Jr., assistant professor of clinical medicine and Director, Division of Cardiology. Codirector of the course was Dr. Donald Bussman, senior instructor in internal medicine.

Appearing on the speaking and panel program were Dr. John W. Berry, assistant professor of clinical medicine; Dr. James W. Colbert, Jr., Dean, School of Medicine; Dr. David B. Flavan, assistant professor of clinical medicine; Dr. John J. Hammond, assistant professor of clinical medicine; Dr. Chester P. Lynxwiler, assistant professor of clinical pediatrics and Director, Pediatric Heart Clinic; Dr. J. F. Gerard Mudd, senior instructor in internal medicine and Director, Cardiac Catheterization; Dr. John A. Nuetzel, assistant professor of internal medicine; Dr. Robert Potashnick, assistant professor of internal medicine; Dr. E. Lee Shrader, associate professor of internal medicine, and Dr. Janney and Dr. Bussman.

A program presenting new concepts of virology was presented at the second Faculty Seminar of the year held December 15. Dr. Goronwy O. Broun, professor of internal medicine and director of the department spoke on "Epidemiology of Influenza as Shown by a Study of Serum Pools." Dr. R. Walter Schlesinger, professor of microbiology and director of the department, spoke on "Abnormal Forms of Influenza Virus." Dr. Henry Pinkerton, professor of pathology and director of the department, and Dr. Malcolm Bawell, instructor in internal medicine, took part in discussions following the two lectures. The causerie speaker of the evening was Dr. George E. Thoma, instructor in the department of internal medicine and consultant to the Atomic Energy Commission, Oak Ridge National Laboratory and Lockheed Aircraft Corporation. His topic was "Medical Problems of Nuclear Powered Aircraft."

Dr. C. Rollins Hanlon, director of the department of surgery, delivered a paper before the Southern Surgical Association in Hot Springs, Arkansas, December 6 titled "The Influence of Temperature on Surface Bleeding; Favorable Effects of Local Hypothermia." The paper was written by Dr. Hanlon and Dr. Vallee L. Willman, resident in surgery.

Dr. Daniel L. Sexton, associate professor of clinical medicine, made the Chairman's Address in the Section on Medicine before the Southern Medical Association meeting held in Houston, Texas, November 14 to 17. His speech was titled "The Internist's Role in the Treatment of Hyperthyroidism and Its Complications." Dr. Willard Bartlett, Jr., assistant professor of clinical surgery, delivered a paper titled "Ambulatory, Segmental Saphenous Ligation Versus Stripping of Varicose Veins" before the Section on Surgery. Dr. Leo J. Hartnett, assistant professor of clinical gynecology and obstetrics, opened a discussion in the Section on Gynecology on "The Diagnosis and Treatment of Carcinoma of the Cervix in the Private Patient." Dr. Francis J. Burns, assistant professor of clinical surgery, opened a discussion in the Section on Proctology titled "Malignancies of the Colon Associated With Adenomas—A Preventable Disease."

Dr. Albert Kuntz, director of the department of anatomy and secretary of the University's chapter of Alpha Omega Alpha, national honorary medical society, has announced the names of fourteen seniors who have been elected to membership in the society. They are: Basil I. Allaire, Ronald V. Erken, Leonard F. Fagan, Edwin H. Hanekamp, Wilbert J. Henke, Merton L. Howard, Gerold S. Klee, Arthur W. Neilson, Stanley J. Nonewicz, Miss Rosemary E. Schmidt, Peter J. Soto, John M. Tierney, Miss Dorothy Jane Worth and Edward J. Zenni. Initiation ceremonies will be held this spring.

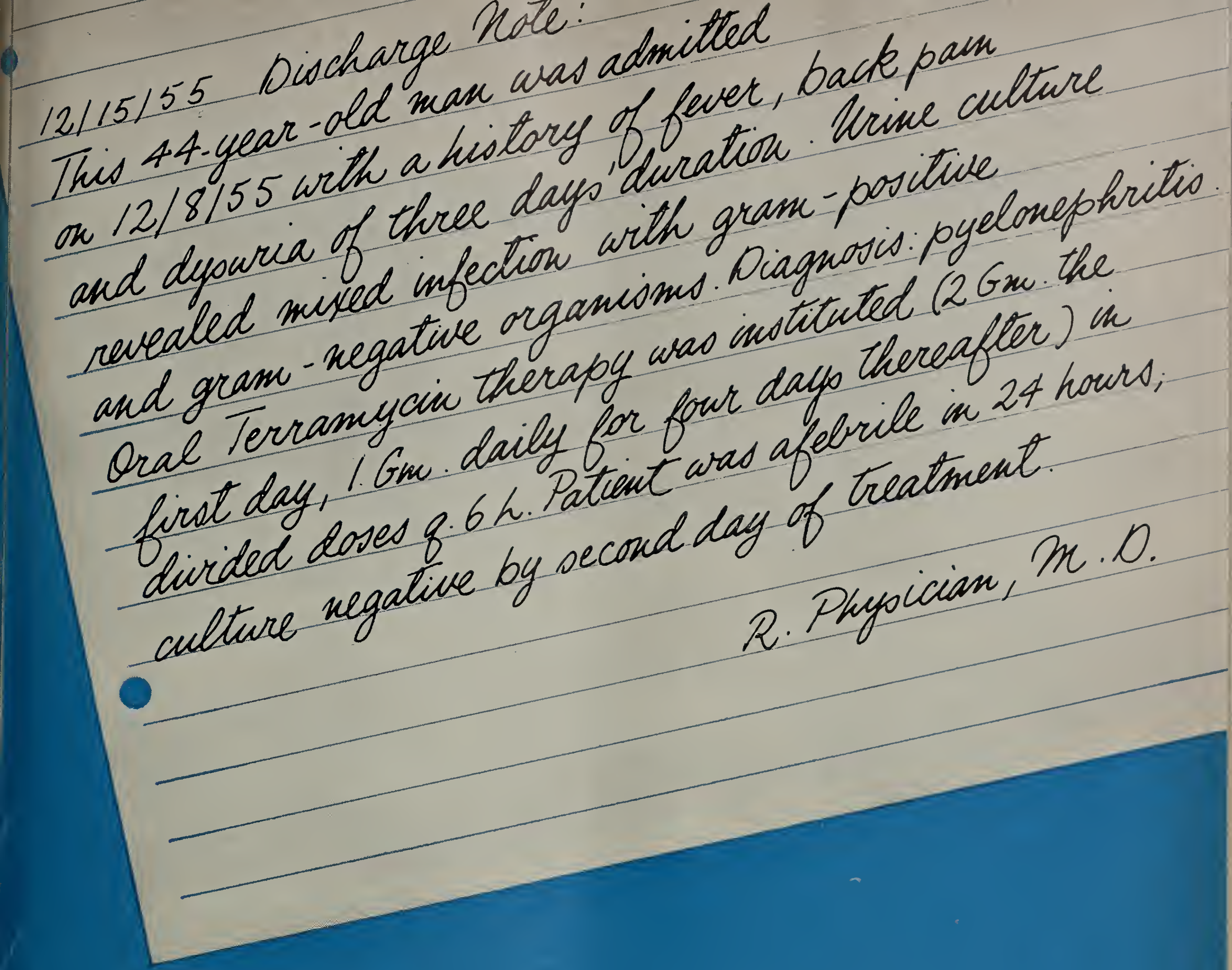
WASHINGTON UNIVERSITY

Honor

Dr. Evarts A. Graham, Bixby professor emeritus of surgery at Washington University, has been named recipient of the 1955 award for service to medicine by the alumni association of the St. Louis College of Pharmacy and Allied Sciences. Dr. Graham was cited for his own studies and for stimulating research on the relationship of tobacco smoking and lung cancer. The presentation will be made at the alumni association's annual awards dinner Feb. 26.

Elections, Appointment

Dr. Leonard T. Furlow, associate professor of clinical neurological surgery, recently was named president elect of the St. Louis Medical Society for 1957. Dr. Furlow is a past president of the St. Louis Surgical Society, secretary of the American Board of Neurological Surgeons and a member of the staffs of Barnes, Jewish, St. Luke's and De-



12/15/55 Discharge Note:

This 44-year-old man was admitted on 12/8/55 with a history of fever, back pain and dysuria of three days' duration. Urine culture revealed mixed infection with gram-positive and gram-negative organisms. Diagnosis: pyelonephritis. Oral Terramycin therapy was instituted (2 Gm. the first day, 1 Gm. daily for four days thereafter) in divided doses q. 6 h. Patient was afebrile in 24 hours; culture negative by second day of treatment.

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Paul hospitals. He is a World War II Navy veteran. Dr. Joseph C. Edwards, instructor in clinical medicine, was one of four members elected to three year terms as councilors of the Society.

Dr. Margaret G. Smith, associate professor of pathology, was elected president of the Washington University Medical Society at a meeting held Dec. 8 at the Medical Center. Other officers elected are: Vice president, Dr. Robert E. Shank, professor of preventive medicine in the department of medicine and head of the department of preventive medicine and public health; and secretary, Dr. Carl G. Harford, associate professor of medicine. New council members are: Dr. Sol Sherry, associate professor of medicine; Dr. William Sleator, Jr., associate professor of biophysics in physiology, and Dr. Lillian Recant, assistant professor of medicine and of preventive medicine. Four research papers were presented by faculty members at the meeting.

Dr. Robert B. Dodd, professor and head of the department of anesthesiology at the University of Maryland School of Medicine, recently was named the Henry E. Mallinckrodt professor of anesthesiology at the Washington University School of Medicine. Dr. Dodd is the first named to the Mallinckrodt professorship recently endowed by Edward Mallinckrodt, Jr., in memory of his son. He also will be in charge of the division of anesthesiology in the department of surgery at the medical school. The appointment is effective in February 1956.

Gift

Mrs. J. Albert Key has given the library of her late husband to Washington University School of Medicine, Dean Oliver H. Lowry announced recently. The collection contains 345 books on orthopedic surgery. Dr. Key, who died August 6, was professor emeritus of clinical orthopedic surgery at the medical school. He was president of the American Academy of Orthopedic Surgeons in 1942 to 1944, president of the American Orthopedic Association in 1945-1946, and chairman of the Bone and Joint Section of the American Medical Association in 1939. He also was one of the half dozen orthopedists elected to membership in the American Surgical Association. He was the author of a widely used textbook, "The Management of Fractures, Dislocations and Sprains," written in collaboration with Dr. H. E. Conwell. A memorial fund in honor of Dr. Key is being established at the Medical Center by former associates, students and patients, to provide a John Albert Key Research Fellowship in Orthopedic Surgery.

Examination

The American Board of Surgery held examination Part II for certification of eighty-eight candidates at the Washington University-Barnes Hospital Medical Center Dec. 12 and 13. Examiners, in addition to officers and members of the governing board, were certified members of the Board from medical schools throughout the country.

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1. Moyer, J.H., in discussion of Galen, W.P., and Duke, J.F.: Outpatient Treatment of Hypertension with Hexamethonium and Hydralazine. South. M.J. *47*:858 (Sept.) 1954.
2. Moyer, J.H.; Dennis, E., and Ford, R.: Drug Therapy (Rauwolfia) of Hypertension. II. A Comparative Study of Different Extracts of Rauwolfia When Each Is Used Alone (Orally) for Therapy of Ambulatory Patients with Hypertension. A.M.A. Arch. Int. Med. *96*:530 (Oct.) 1955.
3. Wilkins, R.W.; Stanton, J.R., and Freis, E.D.: Essential Hypertension. Therapeutic Trial of Veriloid, a New Extract of Veratrum viride. Proc. Soc. Exper. Biol. & Med. *72*:302 (Nov.) 1949.

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LOS ANGELES

Guest examiners included staff members from the medical schools of Washington and St. Louis universities.

Death

Dr. Vilray P. Blair, internationally known St. Louis plastic surgeon and professor emeritus of clinical surgery at Washington University School of Medicine, died November 24 in Clayton. He was 84 years old. Dr. Blair had received many awards for his contributions to the field of plastic surgery and during World War I was chief plastic surgeon for the American Expeditionary Forces in Europe. He practiced medicine in St. Louis until his retirement in 1948.

UNIVERSITY OF MISSOURI

Appointments

Dr. George J. Fuchs, Jr., St. Louis, will become assistant professor of obstetrics and gynecology at the University of Missouri School of Medicine, effective August 1, 1956. Dr. Fuchs is currently serving in the United States Air Force where he is assigned as Chief of Obstetrics and Gynecology at the 1360 USAF Hospital at the Air Force Base in Orlando, Florida. Dr. Fuchs attended Washington University in St. Louis, Miami University in Oxford, Ohio, and received his B.S. and M.D. degrees from the University of Wisconsin in Madison. He is married and has three children.

Dr. Ercell Leon Miller, currently in private practice in Columbia, was appointed as clinical associate in surgery (dentistry) effective November 17, 1955.

Mr. John W. Hester, formerly pharmacist at the University of Michigan Hospitals, Ann Arbor, Michigan, became chief pharmacist at the University Hospitals and instructor in hospital pharmacy, effective January 15, 1956.

Mr. George F. Koenig, formerly chief radiologic technician, Veterans Administration Hospital, Iowa City, Iowa, was appointed as instructor in radiologic technology and chief radiologic technician at the University Hospitals, effective January 16, 1956.

Grants

Dr. Clarence D. Davis, professor and chairman of the department of obstetrics and gynecology, has received a grant in the amount of $1,305.71 from the Ayerst Laboratories for the support of studies on "Endometrial Studies," effective immediately.

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Dr. Thomas W. Burns, assistant professor of medicine, has received a grant in the amount of $2,500 from the Cooper County Heart Association at Boonville, Missouri, for research studies entitled "Urinary Recovery of Intravenously Administered Cortisone in Acute Rheumatic Fever."

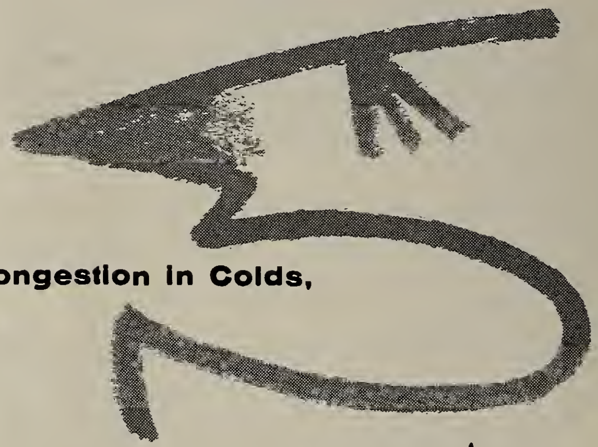
Trips and Talks

Dr. M. D. Overholser, professor and chairman of the department of anatomy, participated in initiation activities of the University of Missouri Chapter of Phi Beta Kappa. The ceremony was held on December 8 at the Memorial Student Union, and was followed by a banquet for Arts and Science faculty members and their wives for the purpose of introducing the newly elected members of Phi Beta Kappa.

On November 28 and December 5, Dr. William A. Sodeman, professor and chairman of the department of medicine, spoke to a group of nurses on the subject "Diagnosis of Disease" as part of a series of lectures being given to staff nurses of the University Hospitals. On November 30 through December 2, Dr. Sodeman was in Chicago conducting oral examinations sponsored by the American Board of Internal Medicine. Members of the VA Hospital Medical Staff in Poplar Bluff on December 12 heard Dr. Sodeman's talk on "Atherosclerosis." On December 13, Dr. Sodeman was guest speaker at a meeting of physicians held in Mount Vernon at the State Sanatorium; he spoke on "Congestive Heart Failure."

Dr. Frank B. Engley, Jr., professor and chairman of the department of microbiology, recently traveled to Oklahoma to visit the department of microbiology at the University of Oklahoma School of Medicine. From there he called briefly at the Veterans Hospital in Temple, Texas, for the purpose of consultation on microbiology. Dr. Victor J. Cabelli of the department of microbiology attended a meeting of the executive committee of the local chapter of the Eastern Missouri Branch of the Society of American Bacteriologists, held in St. Louis, November 21 and 22. On November 15 and 18, Dr. Engley, Dr. Cabelli and Dr. Keller were present at a meeting of the American Public Health Association held in Kansas City's Municipal Auditorium. Dr. Herbert S. Goldberg of the microbiology department took a group of students of nursing to Jefferson City on December 14 to observe the operation and facilities of the Division of Health of Missouri.

Dr. Clarence D. Davis, professor and chairman of the department of obstetrics and gynecology, spoke at a mid-November meeting of the Southern Medical Association held in Houston, Texas. Dr. Davis lectured on "Sclerotic Polycystic Ovarian Syndrome." Dr. Davis attended the annual meet-



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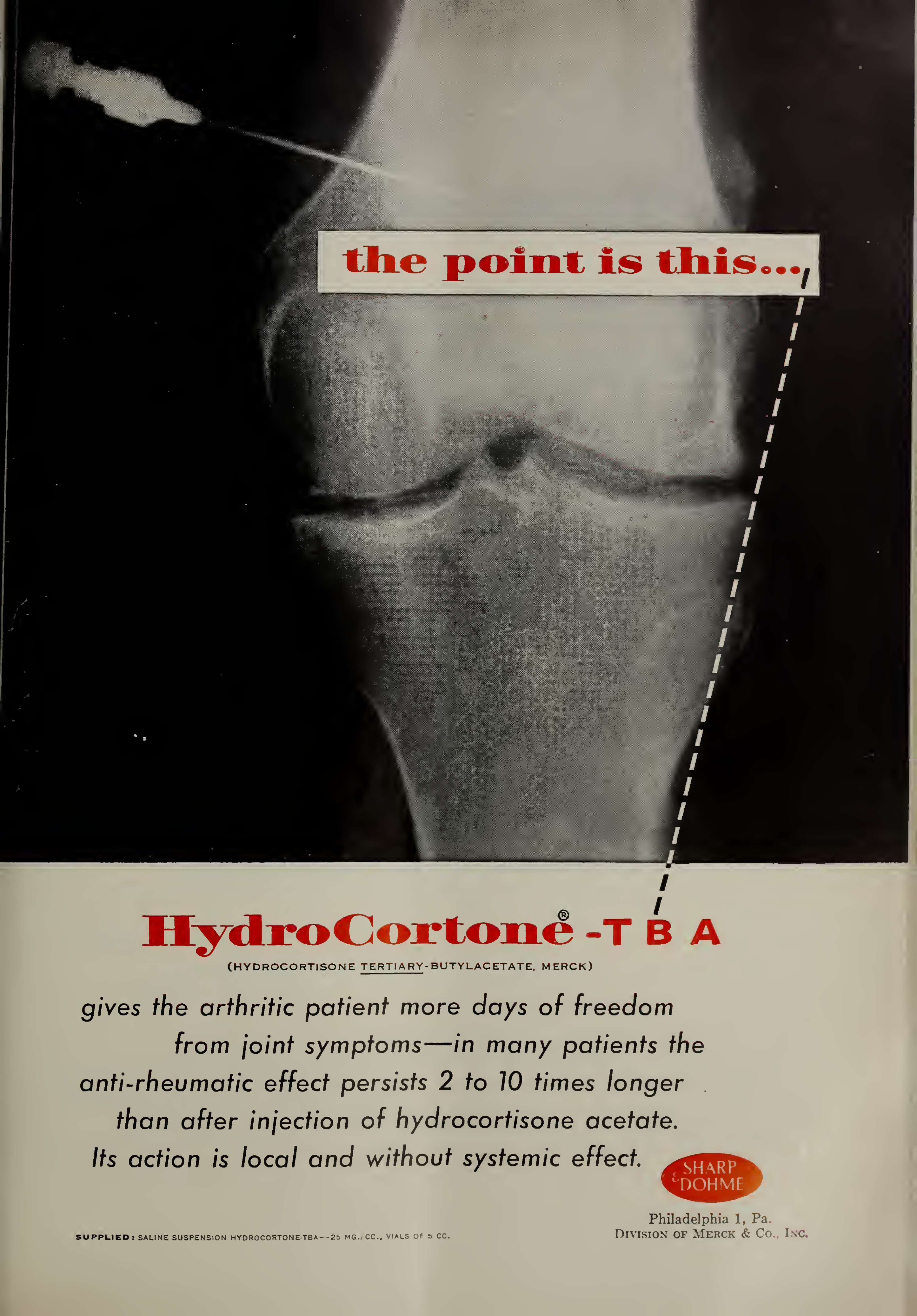

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ing of the American Academy of Obstetrics and Gynecology and the Society for Gynecological Investigation, which was held in Chicago December 10 to 14. In addition to participation at the meeting, Dr. Davis was also chairman of the committee on prize judging of the scientific exhibition. Dr. William Ellis of the department of obstetrics and gynecology traveled to Boston for the Annual Clinical Session of the American Medical Association, held November 27 to December 5.

Dr. Claude Leeper, assistant professor of pathology, participated in a clinical pathology conference held at the Veterans Administration Hospital in Poplar Bluff on December 16.

Dr. Robert L. Jackson, professor and chairman of the department of pediatrics, was guest speaker on November 16 at a meeting in Sedalia of the Henry-Johnson-Pettis-Saline-Moniteau-Benton-Lafayette-Ray County Medical societies. Dr. Jackson's lecture, entitled "The General Medical Supervision of a Healthy Child," was well received by an audience of about one hundred persons. Dr. Ray Hepner, associate professor of pediatrics, spoke on "Rheumatic Fever—Yesterday, Today and Tomorrow" at a meeting of the Children's Convalescent Center Staff and Board of Directors in Kansas City on November 29 and 30. Dr. Clement E. Brooke of the department of pediatrics attended an American Public Health forum held in Kansas City November 16 and 18. While there, Dr. Brooke participated in meetings on poliomyelitis and tuberculosis and discussed with others the related topics of epidemiology, vaccines and crippled children's programs.

On December 13, Dr. Bertis A. Westfall, professor and chairman of the department of physiology and pharmacology, was guest speaker at a meeting of the Psi Chi Honorary Psychological Fraternity on the University of Missouri campus. Dr. Westfall addressed the group on the subject "Addictive Drugs." Ferrill A. Purdy of the department of physiology and pharmacology is currently a reserve officer in the Marine Air Corps. On November 26, as part of a training schedule for Marine fighter pilots and in continuance of his duties as officer in charge of oxygen and survival equipment, Mr. Purdy addressed a group of marine fighter pilots at the Naval Air Station in Olathe, Kansas, on "The Role of Oxygen in High Altitude Flight."

On November 23, Dr. Walter J. Burdette, professor and chairman of the department of surgery, gave the final lecture in the Cancer Lecture Series sponsored by Northwestern University in Chicago. Dr. Burdette's topic was "The Role of Mutation in the Etiology of Cancer."

Dr. Roscoe L. Pullen, Dean, discussed psychiatric and psychological aspects of the "whole patient" as part of a Psychology General Seminar held November 21 at the psychology department of the University of Missouri. The progress of the medical school and University Hospitals was Dr. Pullen's topic at two meetings recently. On November 30 he spoke in St. Joseph to the members of the Sertoma Club, and again on December 13 in Mount Vernon at the Ozark Medical Society meeting. On December 8, Dr. Pullen gave an address entitled "Internship and Residencies" to a gathering sponsored by the Student American Medical Association held on the University of Missouri campus.

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Book Reviews

PERINATAL MORTALITY IN NEW YORK CITY. Responsible Factors. A study of 955 Deaths by the Subcommittee on Neonatal Mortality, Committee on Public Health Relations, the New York Academy of Medicine, Analyzed and Reported by Schuyler G. Kohl, M.D. Published for the Commonwealth Fund, by Harvard University Press, Cambridge, Mass. 1955. Price $2.50.

In 1948 the Committee on Public Health Relations of the New York Academy of Medicine, at the request of Dr. Leona Baumgartner of the New York City Department of Health, instituted an intensive study dealing with the hospital facilities for infant and maternal care. That study was reported in 1952 under the title "Infant and Maternal Care in New York City." This book contains the report on the final phase of study by that committee—a study of the infant mortality in New York City.

The report in 1930, of the Committee of the New York Academy of Medicine studying maternal mortality in New York, was of great importance in that it pioneered studies in this field of medicine and aroused such interest throughout the country that similar study groups were formed in numerous other cities in the United States. While this study of infant mortality will not be of a similar monumental importance, it does help to heighten the interest already existing in this aspect of medicine.

The results of this study parallel those found by numerous other study groups; particularly those of Bundeson of Chicago and the Infant Mortality Committee of St. Louis, and while they add no new information they are a contribution in medicine in that they corroborate the findings of the other investigations.

It is felt that this book will be of no value to the individual practicing physician, but will be quite valuable as a reference book for medical school or medical society libraries.

COLLECTED PAPERS OF THE MAYO CLINIC AND THE MAYO FOUNDATION. Edited by Richard M. Hewitt, M.D.; A. R. Nevling, M.D.; John R. Miner, Sc.D.; James R. Eckman, Ph.D.; M. Katharine Smith, B.A.; Carl M. Gambill, M.D., M.P.H.; Florence Schmidt, B.S.E.; and George G. Stilwell, M.D. Volume XLXI, 1954. Published June, 1955. W. B. Saunders Company, Philadelphia. 1955. Price $12.50.

The present volume is the forty-sixth in this series and is patterned closely after previous publications. The material covered represents work received from December 1, 1953, to November 30, 1954, 629 papers in all, of which 62 appear in full, 52 by abridgement, 20 by abstract, and 495 by title only. The subject matter includes a tremendous variety of topics, all of which pertain to problems of clinical interest. Papers primarily of medical as well as of surgical interest are found at random throughout the volume and, of course, the collection of papers is not meant to represent a comprehensive review of any particular system or topic. The major medical and surgical diseases will usually be considered, however, and most physicians would find various sections of the book of interest and value. However, the random selection of subjects limits the value of the book as a reference, and its purpose must be derived in part from a particular interest some physicians may have in the progress and publications of the Mayo Clinic.

J. P., Jr.

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Curiosa et Trivia

William B. McCunniff, M.D.

Philadelphia General Hospital has set up a professional baby-sitting service in an effort to interest married nurses with small children in returning to work.

The first practical steam engine and the safety valve were invented and built by Angiers medical school graduate, Dennis Pape.

About one third of the women widowed or separated within two years of the 1950 Census had gone through high school.

Druggist Joshua McTavish was considered of great aid in quelling Indian uprisings in the West in the 1840's. He spent most of his professional life peddling medicines to the Indians who, thus soothed, were in a less warlike mood.

A recent issue of a well-known medical journal ran an article with illustrations showing the method of "peritonealizing" a raw surface. Without appearing to be harping on the subject, there is still no such word! Areas covered with peritoneum are "peritonized."

In a recent move to new quarters of the New York City Hospital for Special Surgery, seventy-three orthopedic patients (including those in casts and traction) were moved uneventfully over thirty blocks in less than three hours.

A leading maker of hairpieces reports that 76 per cent of his custom made products are bought by men under 40; nearly half of them are bought by men in their twenties.

In a single year since World War II, Bellevue Hospital admitted 12,000 alcoholics.

King Louis XIV of France, who acquired much fame in many ways, got off to a fast start. Though the comments of his wet nurses are not a matter of record, it is known that he was born with teeth.

El Heraldo of Bogotá, Colombia, February 26, 1945, quotes official records showing a marriage between a 100 year old woman and a 32 year old man. A year later she was delivered of a healthy son.

Capsule Clinics

I. A. Wien, M.D.

- In a sense the patella may be thought of as a large sesamoid bone intercalated in the tendon of the muscle quadriceps femoris as it is prolongated downward to attach to the tibial tuberosity. Spalteholtz, W.: Hand-Atlas of Human Anatomy, 7th Ed., J. B. Lippincott Co., Philadelphia.

- Cervical rib may be unilateral or bilateral, and varies from a simple exostosis of the costal element to a fully formed rib, articulating, by complete joints, with the transverse process and body of the seventh cervical vertebra. Bruce, J., and Walmsley, R.: Manual of Surgical Anatomy, 5th Ed., Oxford University Press, London, 1939.

- The general average of carcinoma of the cervix is about one in 10,000 pregnancies. This of course is due to the fact that the greatest percentage of cervical carcinoma occur between the ages of 45 and 50—a decade in which few pregnancies occur. Crossen, H. S., and Crossen, R. J.: Operative Gynecology, 5th Ed., C. V. Mosby Co., St. Louis, 1941.

- The sternum helps to form the anterior wall of the thorax and corresponds in position to the spine from the second or third to the ninth thoracic vertebra. Spalteholtz, W.: Hand-Atlas of Human Anatomy, 7th Ed., J. B. Lippincott Co., Philadelphia.

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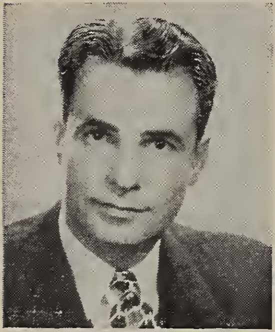
Missouri Medicine in Review

Leo H. Pollock, M.D.

FORTY YEARS AGO

At the Jasper County Medical Society meeting in Joplin, Dr. Morgan, the new president, reported an unusual case of lead poisoning in a young woman following the use of "flake white" as a face paint for nine years. The only treatment advised was a discontinuance of the "paint." He reported a gain of 29 pounds in seven months and clearing up of all symptoms.



Faulty diagnosis of smallpox resulted in the spread of the disease among the inmates of the Children's Home Society of Missouri at St. Louis and ten patients were removed to the infectious disease hospital. The disease had been diagnosed as chickenpox.

The class of 1851, St. Louis Medical College, will celebrate its thirty-fifth annual dinner to be given in the University Club, St. Louis, March 2.

A hospital incorporated as a charitable institution cannot be sued for damages by patients. Such was the decision of the circuit court of St. Louis January 24, when a patient sued to recover damages for an injury alleged to have been caused by a nurse who began a massage and through error started to use carbolic acid instead of alcohol.

A district society composed of the health officers of fourteen cities within the radius of forty miles of Joplin was proposed by Dr. D. R. Hill, health commissioner of Joplin, and a meeting was held at the Connor Hotel, Joplin, February 17, with the view of completing the organization.

There was an innovation at the annual banquet of the Buchanan County Medical Society at the Elks' Club, January 26, in that the doctors were accompanied by their wives for the first time in the history of the organization. Heretofore the dinners have been stag affairs, but this one was so generally enjoyable that Dr. J. F. Owens, toastmaster, predicted that there would be no disposition to return to the old order. The most important feature was the presentation of a loving cup to Dr. C. R. Woodson, as a token of the respect in which he is held by the local society, and of that society's appreciation of the fact that one of its members has been elected president of the Missouri State Medical Society. "The Doctor's Dilemma" was presented. Dr. G. M. Boteler, as a news-press reporter, talked about the ethics of advertising with Sir Rudolph Willman, and mentioned the different ways in which different doctors get their names before the public. One of the most effective, he said, was to have someone with a loud voice appear on the platform at a public meeting and shout: "Call for Dr. Blank! Is Doctor Blank in the house? He is wanted immediately at the telephone! Very important!" This was done effectively, he said, at the Billy Sunday and Champ Clark meetings in the Auditorium. "How does Dr. Beard advertise?" asked Sir Rudolph Willman. "Oh, he's a policeman," was the reporter's answer. "He's getting a lot of advertising, and he expects to practice medicine later."

TWENTY-FIVE YEARS AGO

Dr. Charles W. Head, Windsor, was elected an Honor Member of the Henry County Medical Society. He has been practicing ever since his graduation from Missouri Medical College (now Washing University School of Medicine) St. Louis, in 1877. Only one other member of his class, so far as Dr. Head is aware, is living.

The Local Committee on Arrangements for our next Annual Meeting to be held in Joplin, May 11, 12, 13, 14, 1931, has made considerable progress toward final plans for entertaining the Association. It has already been decided that the Connor Hotel will be the headquarters and that all meetings will be held on the Connor Hotel roof. Those members who attended the session at Joplin in 1923 will recall the splendid facilities that this room offers for holding our meetings, although at the 1923 meeting the sessions were held in the Scottish Rite Cathedral. The rate for a room with bath and one double bed is $4 with $2 for each additional person.

Dr. Francis M. McCallum, Kansas City, was elected president of the Missouri State Board of Health, at the annual meeting of the board held in Jefferson City, January 26. Dr. Horace W. Carle, St. Joseph, was elected vice president and Dr. James Stewart, Jefferson City, was re-elected secretary.

An unusually large number of cases of tularemia have occurred this winter, according to a report by the United States Public Health Service. This increase, it is explained, is probably due to the importance of rabbits as an article of diet in many sections because of economic conditions.

The A.M.A. Chemical Laboratory recalls that Kendall isolated thyroxine from the thyroid gland and that he considered it to have a constitution which later was found to require revision and that in the U. S. Pharmacopeia thyroxine is defined as an active principle obtained from the thyroid gland. While spelled in the Pharmacopeia without a final

(Continued on page 178)

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Women's Auxiliary

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THIRTY-FIRST ANNUAL MEETING

Our business meetings and social functions this year will be held at the Hotel Statler, St. Louis, on Sunday, Monday and Tuesday, April 8, 9 and 10. Members of our executive board are expected to attend; auxiliary members throughout the state are urged to attend; others, whose husbands are in St. Louis for the convention of the Missouri State Medical Association, are cordially invited to attend.

At Monday's luncheon our national president, Mrs. Mason G. Lawson, will speak on her theme for the year, "Active Leadership in Community Health." At Tuesday's luncheon our Missouri State Medical Association president, Dr. Victor B. Buhler, will speak on "What's Ahead?"

A copy of the tentative program, in detail, will be submitted for our page in the April 1956 issue of Missouri Medicine.

GOOD THINGS COME IN SMALL PACKAGES

Is an auxiliary ever too small?

We have a report from a county auxiliary with thirteen members. As we recall, several of these members are young mothers with as many as five children each.

Here are the auxiliary's accomplishments for the year:

1. Window displays for recruitment of nurses (spring and fall). These displays attracted an unusual amount of attention inasmuch as they included lovely photographs of the community's student nurses.
2. Christmas decorations for hospital.
3. Courtesy calls to nursing homes.
4. *Today's Health* and nursing literature to high schools in county.
5. Observance of Doctor's Day.
6. Organization and assisting doctors in polio immunization program.
7. Christmas party for cerebral palsy children.

Our sincere thanks and congratulations go to the thirteen members of the Auxiliary to the Audrain County Medical Society.

Missouri Medicine in Review

(Continued from page 174)

"e" the substance is basic in character and must be spelled thyroxine. Three years ago, Harington and his coworkers arrived at the conclusion that the Kendall formula was not correct. Later this conclusion was confirmed by the preparation of thyroxine synthetically.

Between 1920 and 1930 the population in the four mental hospitals in Missouri increased 37 per cent according to the fifth biennial report of the State Eleemosynary Board. This increase is nearly six times as great as the proportional increase of the population of the state which was 6.38 per cent.

Fifteen cases of trichinosis were recently reported at Williamsville, New York. This outbreak like others occurring in the United States was traced to the eating of raw or improperly cooked pork infected with the parasite Trichina.

TEN YEARS AGO

Helen C. Bennett, writing in this week, wants to know, "What is wrong with doctors where their health is concerned? Why do they fail to apply preventive measures with which they are so familiar? Why are they so inclined to break every health rule? Only physicians themselves know the real answers to these questions. What is apparent is that most doctors seem determined not to be concerned about their physical or mental well-being."

The 88th Annual Session of the Association will be held on March 24, 25 and 26 at the Jefferson Hotel, St. Louis.

Dr. E. Claude Bohrer, West Plains, has been elected president of West Plains' new Civic Music Club.

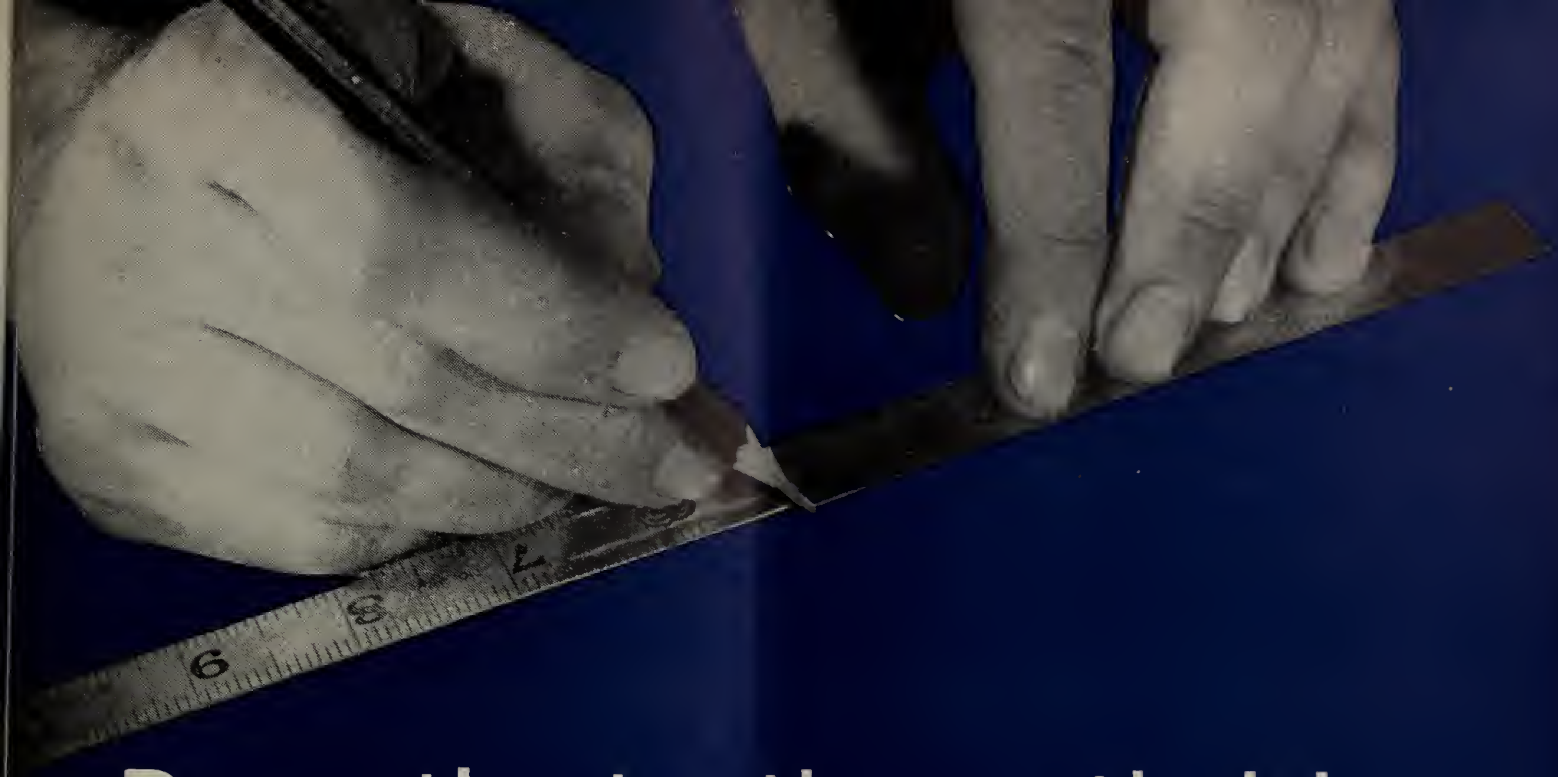
Dr. Asa Barnes, Jefferson City, has been appointed director of general medical services of the American Red Cross.

Dr. Clifton Smith, St. Joseph, was re-elected president of the Buchanan County Tuberculosis Society.

Former Lt. Commander Sam A. Bassett, Richmond Heights, has been awarded the Bronze Star for resourcefulness aboard the escort carrier Marcus Island.

Dr. E. C. Snavely, Sedalia, has been reappointed Pettis County physician.

The Woman's Auxiliary to the Missouri State Medical Association reports that, "The Ides of March are upon us and so is our 21st annual meeting. The Coronado Hotel will be our home for two inspiring days, March 24 and 25, of conference and reports."



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References: 1. Bunim, J. J., et al.: J.A.M.A. 157:311, 1955. 2. Forsham, P. H., et al.: Paper presented at First Internat. Conf. on Prednisone and Prednisolone, New York, May 31-June 1, 1955. 3. Perlman, P. L., and Tolksdorf, S.: Scientific Exhibit presented at A.M.A. Annual Meet., Atlantic City, June 6-11, 1955.

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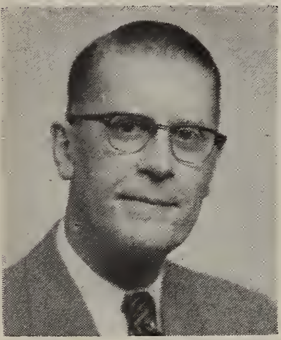
Missouri State Board of Medical Examiners

Duff S. Allen, M.D., *President*

The Examination

The question is often asked "Since all our American Schools of Medicine are now Grade A plus medical schools, why is it necessary that we continue to give State Board Examinations?"



The answer to this has been given rather clearly by Dr. Donald G. Anderson, who is the Dean of the School of Medicine of the University of Rochester. Speaking before the fifty-first annual Congress on Medical Education and Licensure he said, "The opinion is occasionally expressed that we should move in this country toward the system in force in England and in some other countries under which any person graduating from a university medical school is legally qualified to practice without further examination. Perhaps we may some day adopt such a system, but I am inclined to feel that our present system is more in keeping with the American philosophy of checks and balances in matters of public concern and I would venture to predict that any basic change in our procedures for establishing eligibility to practice medicine will not take place in our lifetime, at least if our present system continues to work as well in the future as it has in the past."

We would be inclined to agree with Dr. Anderson, but at the same time we should not lose sight of the fact that our system of examinations and our practices of reciprocity, or lack of reciprocity, between the states might be improved upon. Few things are perfect and even the curricula of our best medical schools undergo changes from year to year. So too we might expect the laws concerning the conduct of licensing boards and the practices adopted by the boards themselves to change from time to time, though not as rapidly as the changes occurring in medical schools since more organizations are involved. There has been a definite effort made to outline the essentials of a modern medical practice act. A committee was appointed by the Federation of State Medical Boards, with Dr. George R. Buck as chairman, and the final report of this committee was made at the fifty-second Annual Congress on Medical Education and Licensure. It is to be hoped that such studies will lead to more uniform methods of examination among the states and through them a more facile granting of licenses to practice within the state and by reciprocity.

Just how do we stand in Missouri? We have a State Board of Medical Examiners consisting of six physicians who are a part of the Department of Education of the State and whose deliberations are guided by the same high ideals that govern the deliberations of those who are responsible for our institutions of learning.

We give a comprehensive examination which while not severe is not at all easy to pass. It is a multiple choice type of examination in which the candidate selects the right answer from among five answers which have already been written out for him. He merely makes a mark in the proper space on a master sheet and this is graded by an attuned machine, thereby eliminating the factor of the grader's opinion of the candidate's opinion. This is more fair and accurate than the essay type of examination as a rule. Last year the examination was composed of 545 questions. This enabled the candidate to display his knowledge in all fields.

Perhaps you would like to know something of our laws concerning the requirements for admission to the examination. In part it is as follows: "All persons applying for examination . . . shall furnish satisfactory evidence of their preliminary qualifications, to wit: a certificate of graduation from an accredited high school, or its equivalent, and satisfactory evidence of completion of premedical education consisting of a minimum of sixty semester hours of college credit in acceptable subjects from a reputable college or university approved by the board. They shall also furnish satisfactory evidence of having attended throughout at least four terms of thirty-two weeks of actual instruction in each term and of having received a diploma from some reputable medical college that enforces requirements of four terms of thirty-two weeks of actual instruction in each term, including two years' experience in operative and hospital work at the time of graduation."

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Missouri Academy of General Practice

J. H. Trolinger, M.D.

American Academy of General Practice

By the time this copy of Missouri Medicine is in the mail, many Missouri GP's will be making final arrangements to attend the American Academy's Eighth Annual Scientific Assembly, March 19-22, in Washington, D. C. For those fortunates attending this whopper here are a couple of tips likely to further enrich this great experience:

To plan a special luncheon or dinner party for members of the Missouri Chapter at the hotel of our choice. Just as quickly as possible after the details of such a meeting can be worked out they should be given to Miss Cleo Norris at the press room in the Hotel Statler for fullest publicity in the *Daily Bulletin* to be published daily throughout the assembly.

All Academy members may not be aware of the fact that they are invited to attend the State Officers' Conference Monday, March 19, in the Hotel Statler. The Commission on Hospitals, Commission on Membership and Credentials, Commission on Education and Commission on Legislation and Public Policy will each meet separately in a "round-table workshop" shortly after the Conference convenes. At 9:00 p.m. the conference will return to a general session for a summation by each commission chairman. This event should afford a wealth of ideas and practical information for all members to employ at our local level.

All Missouri GP's will be both pleased and proud to learn that our old stalwart William J. Shaw was elected chairman of the American Medical Association's Residency Review Committee at the recent Clinical Congress in Boston. The committee is comprised of three members from the Academy and three from the A.M.A.'s Council on Medical Education and Hospitals.

Consonant with the primary aims and precepts of the A.A.G.P., the Missouri Chapter continues its all-out effort to promote continued, postgraduate education for its members—and for all Missouri physicians conscientious enough to keep up with general medicine. Monthly meetings and clinical sessions continue to be held throughout the state; they are of the highest caliber, and well attended. We are deeply obliged to our Education Committee for promoting this program, to Ray McIntyre for expediting it, and to the many excellent speakers, panelists and instructors for providing it. This "bringing the mountain to Mohammed" program of instruction is not come by easily—at least not to those who provide it. It is to them that we are most grateful for their disrupted schedules, exhausting hours of driving, loss of time and yet cheerful helpfulness.

The 1956 business of the Missouri Academy is now well under way, with the new officers, directors and committees under full steam. The Education Committee met in Jefferson City, January 29, and the Board of Directors convened there February 12.

Since only the names of the newly elected officers has thus far been published, the names and addresses of other key members conducting the affairs of the Missouri Academy are given hoping that many readers will find the occasion to contact them for help or advice.

Membership Committee: P. C. Hall, M.D., Chairman, 4243 Lafayette, St. Louis.

Hospital Committee: Robert C. McElvain, M.D., Chairman, 4356 Warne, St. Louis.

Education Committee: W. J. Shaw, M.D., Chairman, Lee Hospital, Fayette.

Permanent Building Fund Committee: M. B. Casebolt, M.D., Chairman, 4000 Baltimore, Kansas City.

Finance Committee: Loren Washburn, M.D., Chairman, Versailles.

Public and Professional Relations Committee: Walter C. Gray, M.D., 8711 St. Charles Road, St. Louis.

Publicity and Publications Committee: J. H. Trolinger, M.D., Jackson.

Medico Legal Committee: E. V. Henchel, M.D., Chairman, 6200 Hoffman, St. Louis.

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Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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Vol. 53 March, 1956 Number 3

Prophylaxis in the Eyes of Newborn Infants

A Comparison of Silver Nitrate and Erythromycin

H. EWING WACHTER, M.D., *St. Joseph*, AND MIRIAM M. PENNOYER, M.D., *St. Louis*

THREE QUARTERS OF A century ago Credé described the first successful method for the prophylaxis of ophthalmia neonatorum. By the introduction of one drop of 2 per cent silver nitrate into each conjunctival sac immediately after birth he was able to reduce the incidence of ophthalmia in the infants of his Leipzig service from the shocking figure of 10 per cent to approximately 0.25 per cent. The "Credé method" became medical tradition and in many states of this country a legal concomitant to birth. There remained however a small but definite percentage of failures. In 1935, on the eve of the appearance of sulfanilamide, Lehrfield[1] mentioned the frustrations encountered in the use of silver nitrate in the complete elimination of the disease. He reported an incidence of 0.7 per cent gonorrheal ophthalmia in 28,000 deliveries in Philadelphia. All observers agree that silver nitrate never has succeeded totally in abolishing this disease. There is an apparently irreducible minimum possibly accounted for by such factors as inadequate or careless application of the solution, or reinfection of the eyes subsequent to the initial prophylaxis. In addition, since silver nitrate possesses no true therapeutic value against the gonococcus its prophylatic value might be questioned in comparison with more recent drugs such as penicillin and the sulfonamide compounds.

In view of the actual reduction of gonorrheal ophthalmia by the Credé method, silver nitrate would not have found so many critics were it not for certain other factors associated with its use. (1) A high incidence (up to 100 per cent)[11] of chemical irritation of the conjunctivae varying from redness and watery discharge to severe edema and purulent discharge, occasionally even hemorrhagic in nature. Such conjunctival reactions have been implicated in the subsequent development of ophthalmia other than gonorrheal and of plugging of the lacrimal duct. (2) Blindness, resulting from the use of deteriorated and concentrated solutions or from the mistaken use of preparations of higher concentration than can be tolerated by the corneal tissues. It has been shown repeatedly[5] that silver nitrate in improper containers or in damaged or cracked wax ampoules may have deteriorated sufficiently to be seriously destructive. Eastman,[2] in a recent issue of the *Obstetrical and Gynecological Survey* mentions currently pending legal suits over blindness in two infants from the use of silver nitrate in allegedly defective ampoules. Lehrfield,[3] who contacted eighty-five former residents of the Wills Eye Hospital, found seventeen who had either seen or known of blindness resulting from excessively strong concentrations of silver nitrate.

The sensitivity of the gonococcus to the sulfonamide drugs and antibiotics made them logical replacements for silver nitrate and in the last eight years several of these agents have been used both locally and systemically as prophylactics in eyes of new born infants. The results of these trials have shown these drugs to be equal or superior to silver nitrate in effectiveness and to produce much less local reaction. Deterioration of these compounds, while presumably reducing their effective therapeutic value, does not render them injurious to the corneal tissues. Bickel[4] in 1949-1950 found no ophthalmia neonatorum in 642 infants who have received 30 per cent sulfacetimide drops locally and one instance in 682 infants in whom silver nitrate had been used. There was one in 583 babies who received 10 per cent sulfacetimide ointment prophylaxis. Franklin[5] in

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(MMP) From the Department of Pediatrics, Washington University, St. Louis.

1947 reported one case of gonorrheal conjunctivitis in 749 newborn infants receiving silver nitrate. There were no cases in 961 given penicillin drops. Davidson, Hill and Eastman[6] in 1951 reported a series of 12,036 babies in whom no gonorrheal ophthalmia was observed. These infants comprised several groups in whom various schemes of prophylaxis were employed: 1,368 babies received 1 per cent silver nitrate in wax ampoules, 1,772 received 50,000 units of aqueous penicillin intramuscularly, and a total of 10,677 were given penicillin ointment in concentration of 100,000 units per gram locally. Penicillin ointment has now replaced silver nitrate on the obstetrical service of the Johns Hopkins Hospital and the number of infants so treated now numbers more than 50,000.

Linn[7] found no gonorrheal ophthalmia in 3,214 newborn infants, 2,233 of whom received penicillin drops, 981 1 per cent silver nitrate. Watts and Gleich[8] working at the Harlem Hospital reported an incidence of 0.39 per cent gonorrheal ophthalmia in 10,992 babies in whom silver nitrate alone was used. A second group of 1,425 in whom oral sulfathiazole plus silver nitrate was used showed a 0.14 per cent incidence. A third group of 4,665 receiving intramuscular penicillin plus silver nitrate showed a zero incidence of gonorrheal ophthalmia. Intramuscular penicillin however has not become popular because of the possible danger of Herxheimer reactions.[6] Clark and Culler[9] used 0.5 per cent aureomycin drops in a total of 2,957 infants with no gonorrheal ophthalmia. It is of interest that Leff[10] reported no gonococcal infection in 4,500 babies in whom no prophylactic agent was used but whose eyes were carefully flushed with sterile water.

At the present time one questions the exposure potential in infants born in the United States. More than fifteen years of chemotherapy has altered both the incidence and character of gonococcal infections. Davidson, Hill and Eastman[6] reporting in 1951 were able to culture gonocci from the cervices of seven of 257 Negro women in the last trimester of pregnancy, or 2.7 per cent. Two of their infants had positive conjunctival cultures. They quote Plass' figure of 4 per cent positive cervical cultures of 400 pregnant women in 1939, approximately ten years previously. Allen and Barrere[11] in 1949 grew gonococci from eight of 531 cervices of pregnant women just before delivery, an incidence of 1.5 per cent. Conjunctival cultures of the infants of these eight women were negative for gonococci. These authors contend that only the lower third of the birth canal is likely to contaminate the infant's eyes, a location not ordinarily inhabited by the gonococcus. Thus, although the percentage of babies whose eyes are contaminated with gonococci at the present time is not known, it is probably well below 1 per cent, and is mentioned to contrast the existing situation with that of the latter 19th century when an incidence of 19.26 per cent gonorrheal ophthalmia in infants receiving no form of prophylaxis was reported by Fuchs. Silver nitrate obviously was responsible for the decline in this condition yet it is difficult to credit it with such effectiveness today when an estimated morbidity of less than 1 per cent without prophylaxis is compared with rates of from 0.3 to 0.7 per cent in certain series using silver nitrate.

Similarly it is of interest to review the figures from the Missouri School for the Blind extending back to 1916. Grouped into blocks of five years each, the admissions to the school by virtue of ophthalmia neonatorum is as follows:

Years	*Number of Admissions by Virtue of Ophthalmia Neonatorum*	*Percentage of Total Admissions*
1916-1921	12	11.5
1921-1926	18	12.7
1926-1931	10	11.1
1931-1936	5	4.5
1936-1941	6	6.7
1941-1946	5	4.5
1946-1951	4	3.6

That Missouri figures typify the situation nationally is evidenced by the 33rd Annual Report (1947) of the National Society for the Prevention of Blindness which quotes a fall from 22.8 per cent in 1906-1912 to 2.9 per cent in 1945-1946 in percentage of blindness caused by gonorrheal ophthalmia. In Missouri the use of silver nitrate became mandatory on July 6, 1921, and apparently it took about ten years for this public health measure to be reflected in admissions to the School for the Blind. There has been however, no significant decrease in these figures for more than twenty years (1931-1951), reaffirmation that silver nitrate has not eliminated gonorrheal ophthalmia completely. Its undesirability as a conjunctival irritant is well known and there is increasing recognition of the potential dangers associated with its use.

PLAN OF STUDY

Disturbed by the side effects of silver nitrate prophylaxis in the eyes of newborn babies, the St. Louis Pediatric Society and the St. Louis Gynecological Society in 1953 proposed a study in five teaching hospitals in the City of St. Louis. Permission for such investigation was secured from the Missouri Division of Health, and the Health Department of St. Louis also sanctioned and cooperated in the program.

The choice of an alternative to silver nitrate was a difficult one. Although the proposal of irrigation of newborn eyes with sterile water or saline solution[10] only is a provocative one, it was not considered feasible for over-all use in Missouri at the present time. Penicillin ointment previously had been demonstrated by Eastman's group[6] and others to be an effective, nonirritating preparation and *is probably the agent of choice in the well regulated delivery room.* In granting permission for this investigation the Missouri Division of

Health was interested in a substitute which could be used throughout the state in home, as well as hospital deliveries, and by midwife as well as physician. Such a preparation then must be stable for long periods of time at ordinary indoor and outdoor temperatures. It was felt that a drug effective against the gram-positive organisms commonly cultured from the newborn infant's eye as well as against the gonococcus was desirable. Erythromycin ophthalmic ointment carrying a fifteen month dating and requiring no refrigeration was selected. The possibility of sensitization was appreciated but discounted in light of the apparent anergy of the early neonatal period.

Obstetrical and pediatric services of the following hospitals participated: St. Luke's, St. Mary's, Jewish, St. Louis City and St. Louis Maternity. From March 1, 1953, to June 1, 1954, 1 per cent silver nitrate solution in drops or ampoules (according to the existing practice of the institution) was alternated with Erythromycin ophthalmic ointment* as the prophylactic agent. Approximately a one half inch strip of the latter was placed in the conjunctival sac of each eye without subsequent irrigation. Delivery room personnel reported no trouble in using the ointment and indeed found it easier and less time consuming than the two-fold silver nitrate plus irrigation. The tubes of ointment were kept at room temperature in the delivery rooms and were used up to the date of expiration marked on each tube. No attempt was made to use the freshest material available. Occasional cultures from the nozzles of tubes in use proved sterile.

PART I

The first phase of the study included 2,333 babies born in March, April and May of 1953. All these babies were observed for seven days after birth. Their eyes were checked daily by the nurse and a pediatric house officer and a written record kept of the reaction or absence thereof. Reactions were graded daily as to their severity and the final report of the infant was that of the severest grade noted.

STANDARDS FOR GRADING CONJUNCTIVAL REACTIONS

0—no reaction
I—redness and swelling
II—redness and swelling plus discharge.
III—redness and swelling plus copious purulent discharge.

Grade III reactions were cultured, but because of the several hospital laboratories involved it was decided to tabulate only the figures for the gonococcal cultures. There are numerous reports descriptive of the bacterial flora of newborn infants' eyes both with an without silver nitrate, and it was not our purpose to repeat this work. Thus silver nitrate produced conjunctival reactions in two and a half times as many babies as Erythromycin. Broken down into grades, for grade I these are two and a half times more frequent with silver nitrate than with Erythromycin, for grade II five times more frequent with silver than with the antibiotics, and for grade III, the most severe type, silver nitrate produced reactions thirteen times more frequently.

TABLE 1

THE INCIDENCE OF CONJUNCTIVAL REACTIONS IN 2,333 INFANTS OBSERVED IN PART I

Type of Prophylaxis	*Reactions*						Total all grades	
	Grade I		Grade II		Grade III			
	No.	*%*	*No.*	*%*	*No.*	*%*	*No.*	*%*
1 Per Cent Silver Nitrate 1071 Infants	230	21.4	108	10.0	11	1.0	416	38.8
Erythromycin Ointment 1262 Infants	108	8.5	27	2.1	1	.08	201	15.9

Reactions to both drugs necessarily were grouped as if they were similar in character. This is not the case. The reaction of silver nitrate occurs within twelve to thirty-six hours following birth and is obviously the result of chemical trauma. Reactions to Erythromycin appeared most often on the third and fourth days and appeared more in the nature of a contact dermatitis of the lids.

PART II

At the end of the first three month period the comparison of reactions to the two agents was sufficiently marked and consistent in all five institutions to discontinue the recording of the reactions. All observers were impressed with the superiority of the antibiotic to silver nitrate in its lower incidence of irritation. The study was then continued to observe a sufficiently large number of infants for the comparative effectiveness of the two agents against gonococcal infection to be significant. Thus the drugs were alternated for a further twelve month period, adding 10,366 infants to the series.

The study was terminated June 1, 1954, with a total number of 12,599 infants, 5,489 of whom had received 1 per cent silver nitrate and 7,110 Erythromycin ophthalmic ointment after birth. No case of gonorrheal ophthalmia was observed in the entire group. One case was suspected but bacteriologic studies proved the offending organism to be a meningococcus. State and city records were checked for the appearance of gonorrheal ophthalmia following discharge from the hospital. No such cases were found.

SUMMARY AND CONCLUSIONS

1. A total of 12,599 infants born in five teaching hospitals in St. Louis were alternated as to the type of conjunctival prophylaxis employed, 5,489

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* Material used in the study was Ilotycin Ophthalmic Ointment (Erythromycin 5 mg. per gm.) and was kindly furnished by Eli Lilly and Co.

received 1 per cent silver nitrate, and 7,110 Erythromycin ophthalmic ointment.

2. Records of the number and severity of conjunctival reactions were kept in 2,333 of the infants. Erythromycin greatly reduced the number of such reactions, and to an even greater degree, their severity.

3. Erythromycin ophthalmic ointment was found to be easy to apply, stable for long periods without refrigeration, and equally or more effective in the protection of newborn infants, eyes against gonococcal infection.

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Avulsion of the Entire Scalp

F. X. PALETTA, M.D., *St. Louis*

SCALP INJURIES are quite common. The simple lacerations seen in children, sustaining falls around the home, heal quickly following repair. Severe lacerations involving the entire scalp, such as result from automobile accidents, similarly offer no problem since in most instances there is good blood supply through the pedicle attachment. Direct closure of these wounds results in quick healing.

The most serious injury about the scalp is complete avulsion. It is usually seen in females with long hair, resulting from industrial accidents. The hair is caught in a machine and the scalp is completely torn off.

REPORT OF CASE

A farm girl, aged 7, riding on a tractor, lowered her head to prevent being hit by a tree branch and her hair was caught in the power take-off of the tractor. The scalp was completely avulsed from the head. A pressure dressing was applied by Dr. W. F. Francka at Hannibal and she arrived at the hospital in St. Louis three hours later. The scalp was sent to the hospital with the patient (fig. 1).

There was no evidence of shock. Since the child's general condition was good, she was given a transfusion and prepared for surgery. Examination of the scalp specimen revealed it to be severely traumatized along the base of the hair follicles. The entire skull was cleansed carefully with saline solution and split thickness skin grafts were applied to the entire area.

One week later, there was an area of skin graft that was not vascularized because of traumatized periosteum. The cortical bone was removed from this area and skin graft was applied over the cancellous bone. These two procedures covered the entire head with thick split thickness skin grafts (figs. 2 and 3).

The little girl is now in school wearing artificial hair (fig. 4).

DISCUSSION

Whenever lacerating wounds of the scalp have

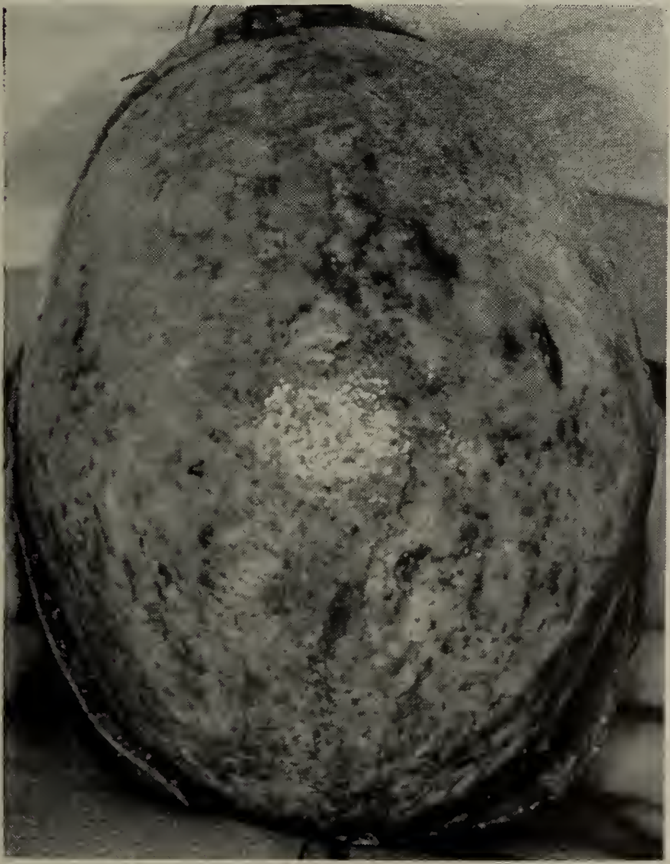

Fig. 1. Avulsion of the entire scalp from a tractor injury.

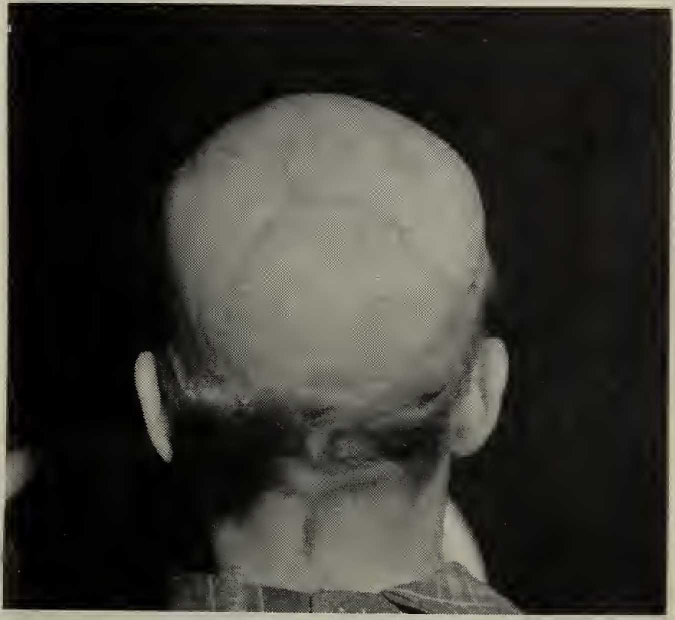

Fig. 2. Scalp covered with thick split thickness skin grafts.

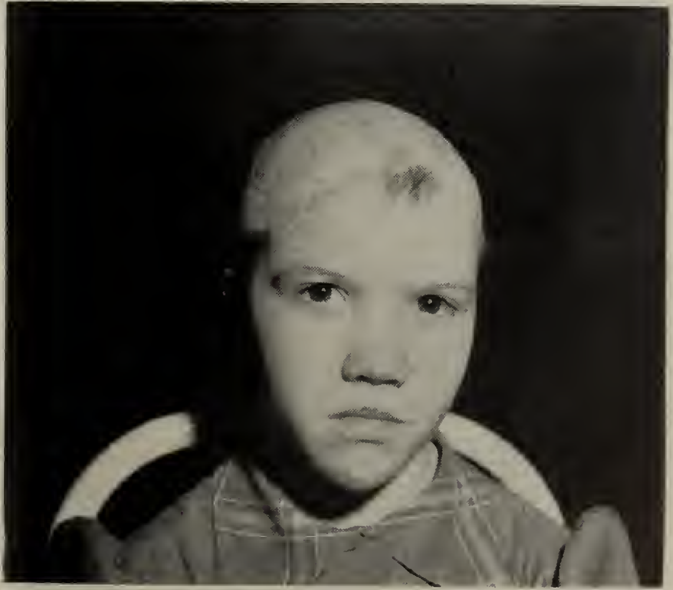

Fig. 3. Posterior view of the scalp following skin grafting.

From the Department of Surgery, St. Louis University School of Medicine, St. Louis, Missouri.

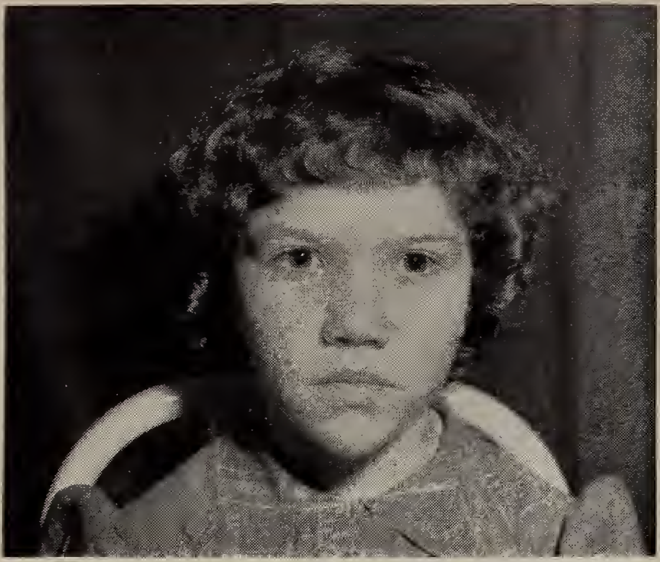

Fig. 4. Child with artificial hair that closely matches her own former hair.

a pedicle attachment, it is usually worth while suturing the scalp back in place. It is not surprising that large flaps with small pedicle attachments heal well because of the blood supply carried through these pedicles.

However, when there is complete avulsion of the scalp, there are two procedures that can be followed.[1, 2, 3, 4, 6, 7] The hair can be removed from the scalp specimen and full thickness strips of skin grafts containing hair follicles can be made. These are applied to the skull providing there is good periosteum covering bone. Some surgeons are enthusiastic about this procedure and others are not. This procedure was first described by Gussenbauer[5] (1883). However, it is known that even in small hair grafts from the scalp to form eyebrows there is not a consistent uniform growth of hair because of probable injury to the hair follicles. Preparation of full thickness grafts from these scalp specimens is not easy. If the periosteum has been denuded or severely macerated, it is useless to apply these thick, hair bearing grafts.

The second procedure is the application of thick split thickness grafts over the periosteum and, if there is no periosteum, resection of the outer cortical bone and application of skin grafts over cancellous bone.

When a portion of the scalp has not been injured, it frequently can be used to transfer hair bearing skin in staged procedures to establish a normal hair line (figs. 5 and 6).

SUMMARY

A case is presented of avulsion of the scalp in a 7 year old girl resulting from a tractor injury. The entire head was covered with split thickness skin grafts. Since there was no hair bearing skin remaining for reconstruction, she now wears an artificial hair piece.

634 N. Grand Ave.

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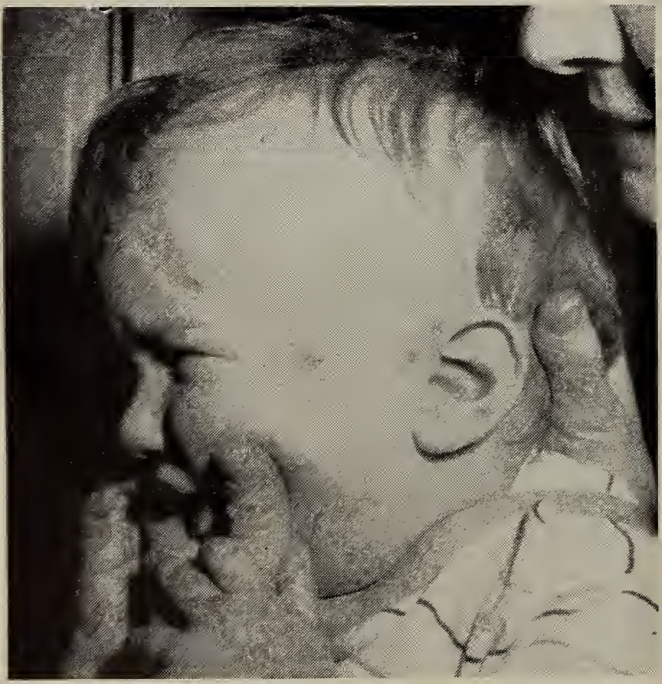

Fig. 5. Large area of scalp covered with skin graft following removal of a skin tumor.

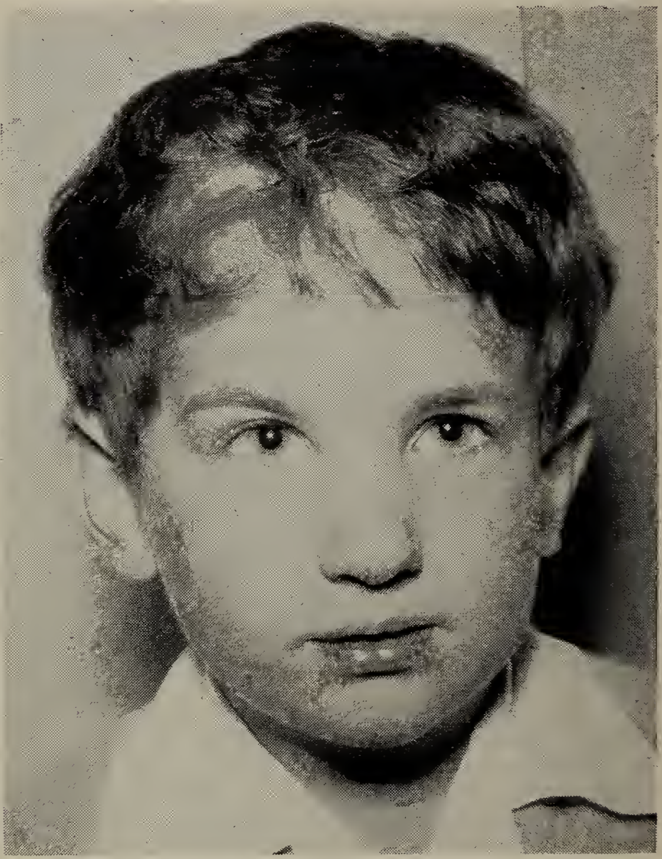

Fig. 6. Flap shift of hair-bearing skin to reestablish normal hair line of the patient shown in figure 5.

The Neurological Hospital

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Kansas City, Missouri

★ ★ ★

A voluntary hospital providing the care and treatment of nervous and mental patients and associate conditions.

The Norbury Sanatorium

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Henry A. Dollear, M.D.,
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Frank B. Norbury, M.D.
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For convenience, available in ½ oz. plastic spray bottle.
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Safe for children and adults
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RHINOPTO COMPANY, DALLAS, TEXAS
Ethical Specialties for the Profession

Doriden Intoxication

JACK R. EIDELMAN, M.D., *St. Louis*

THE NEVER ending search for new drugs in the treatment of emotional disorders has produced several preparations widely advertised as "barbiturate substitutes." There is no question but that some of these new drugs are quite useful and are effective to some degree. The various pharmaceutical companies, in an attempt to avoid the term "sedative," describe these drugs as "quieting agents," "tranquilizing drugs," "gentle," and infer by their advertising that the medication concerned is neither toxic nor harmful. The following case report illustrates the need for vigilence and caution in the use of the newer "quieting" drugs.

REPORT OF CASE

Mrs. M. S., diagnosed as having schizo-affective reaction, was given a prescription calling for thirty 500 mg. tablets of Doriden (Glute-thimide-CIBA). On the first day she called to tell of a faint feeling following the ingestion of one tablet. She was advised to reduce the dosage to ½ tablet three times daily, since such feelings are traditionally difficult to evaluate. Nothing was heard from her until three days later. She was found in a coma at 10:00 a.m. and promptly removed to the Jewish Hospital in St. Louis. She remained in a coma for approximately thirty-six hours, thrashing about restlessly for another ten hours. In her purse were found fifteen Doriden tablets; it was ascertained she had not refilled the original prescription, and after her recovery Mrs. S. denied intake of any other drug. Her story appeared reliable. It was calculated that she could not have ingested more than ten 500 mg. tablets of Doriden.

The patient was admitted in a state of total flaccid paralysis; reflexes were completely absent. The pupils were equal and reacted to light. The remainder of the neurologic examination was not remarkable.

Her hospital course was interesting and differed considerably from that of severe barbiturate poisoning. Throughout the entire period of coma, respiration was rapid and shallow, the respirations varying from 44 to 56 during the critical period. At times respiration was weak and irregular and, as a precaution, she received nasal oxygen from the time of admission until she regained consciousness.

Pulse rate was also elevated throughout the period of coma, ranging from 116 to 144. The pulse rate and respiration gradually decreased, returning to normal as the patient became conscious.

Blood pressure was 80/40 on admission, responding rapidly to an ampoule of Wyamine intramuscularly. In the thirty-six hours of coma her blood pressure remained stable except for brief drops to 80/60 or less on five occasions. The blood pressure responded rapidly to Wyamine each time, rising to its average range of 100/70 to 120/80.

For the first twenty-four hours the patient was subject to repeated episodes of tonic spasms of various parts of the body. Sometimes only one side of the body was involved, and sometimes the entire body including the neck and extremities were affected. A generalized convulsion was observed on two occasions.

Laboratory findings were not remarkable, considering the severity of her reaction. On admission there was a 1 plus acetone in the urine, all other findings being normal. Repeat urines were completely normal. The nonprotein nitrogen on admission was 38, falling to 28 the following day and remaining normal. All other laboratory findings were within normal limits. The possibility of alkalosis as a reaction to her constant rapid respiration was considered; however, this was not borne out by the laboratory findings. The carbon dioxide combining power was 21.3 meg/1. The sodium, chloride and calcium determinations were within normal limits. Spinal fluid examination result was completely normal; pressure was 120 mm. of water; no cells were seen. Total protein was 40 mg. per cent.

Treatment consisted chiefly of intranasal oxygen, subcutaneous fluid and constant suctioning of the nasopharynx. Wyamine was given intramuscularly when the blood pressure dropped. During the first day she received Desoxyn, 20 mg. intravenously every two hours, but since it had no effect on her over all condition, and her blood pressure on the whole remained within normal range, it was discontinued. Though her course was stormy at first, and she appeared on the verge of death several times, she recovered completely after forty-eight hours, showing no residual effect of the drug poisoning. She became cheerful and pleasant, feeling that she had experienced recovery. Several weeks following this suicidal attempt, however, she had recurrent symptoms and was admitted to a psychiatric hospital for further therapy.

SUMMARY

A case of Doriden intoxication is reported. Following the ingestion of approximately ten tablets, the patient experienced severe coma of thirty-six hour duration. Her reaction appeared to have been based on hypersensitivity to the medication. The clinical course was interesting and important in that it differed considerably from the intoxication of barbiturates, and suggested actually a heavy metal type of poisoning. This was not borne out by the laboratory findings. The syndrome was manifested principally by rapid, shallow breathing, increased pulse rate, muscular tonic spasms with occasional convulsions, and a blood pressure that remained within normal range except for several sharp drops that responded quickly to Wyamine.

Though several patients have experienced mild to moderate skin reactions, this was the only severe reaction I have seen in using this drug. Doriden appears effective as a mild sedative. As with any drug occasional severe reactions and sensitivity are seen and one must constantly be on the alert.

4652 Maryland Ave.

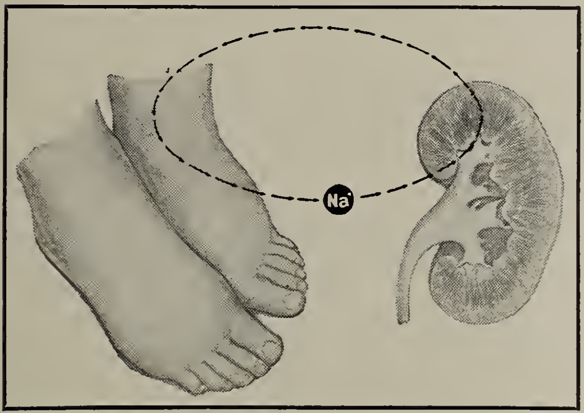
Senior Instructor in Neuropsychiatry, St. Louis University School of Medicine.

From the Department of Neuropsychiatry, Jewish Hospital, St. Louis.

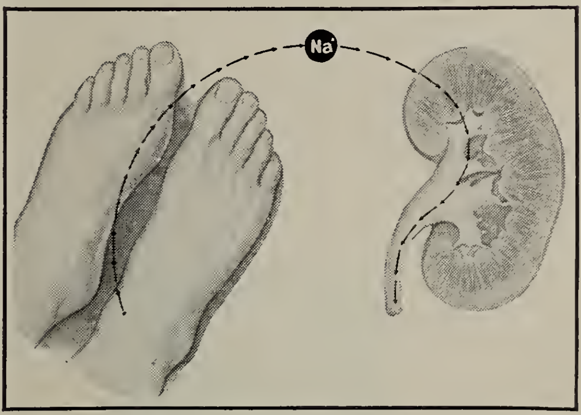
MICTINE* — ORAL NON-MERCURIAL DIURETIC

New Orally Effective Diuretic for Congestive Edema

Best results are obtained when Mictine is administered with meals on an interrupted dosage schedule.



WITHOUT MICTINE—*Prior to diuretic therapy excessive sodium and water are characteristically retained in the edematous patient.*



WITH MICTINE—*Inhibition of the reabsorption of sodium ion leads to an increased excretion of sodium ion, water and chloride.*

An effective diuretic has been described as one which causes excretion of water, sodium and chloride in amounts sufficient to reduce the edema but not to result in salt depletion.

Mictine (brand of aminometradine) introduces to clinical practice an *improved* diuretic which not only meets the standard qualifications but has these seven additional advantages:

Mictine is orally effective; it is not a mercurial; it has no known contraindications; it does not upset the acid-base balance; it exerts no significant influence on electrolyte balance; it may be given in the presence of renal or hepatic diseases; it is well tolerated.

As with most effective therapeutic agents, in high dosage Mictine may cause some side effects in some patients; however, on three tablets daily side effects (anorexia and nausea, rarely vomiting, diarrhea or headache) are minimal or absent.

Clinically, Mictine is useful in the maintenance of an edema-free state in all patients and for initial and continuing diuresis in mild or moderate congestive failure. It is not intended for initial diuresis in severe congestive failure unless either sensitivity or tolerance to other diuretics has developed in the patient.

The maintenance dosage of Mictine, as well as for initial diuresis in mild or moderate congestive heart failure, is one to four 200-mg. tablets daily in divided doses; the dosage for initial diuresis in severe congestive failure, under the conditions already described, is four to six tablets daily. For either use, it is recommended that Mictine be prescribed with meals on interrupted dosage schedules; that is, prescribing Mictine on alternate days or for three consecutive days and omitting it the next four days.

*Trademark of G. D. Searle & Co.

Descriptive literature and clinical trial packages are available on request to . . . **SEARLE** P. O. Box 5110, B
Chicago 80, Illinois

President's Page

By now you will have received the Association's ballot on the question of coverage of physicians under the Social Security Laws.

Because of the importance of this question to all of us, both as individuals and as a group, we are hoping that every member will take this opportunity to vote.

Results of the poll will be presented to the House of Delegates at the Annual Session in St. Louis in April, and will be made available to the American Medical Association. I am sure that the opinions expressed by the members in this survey will have a great deal to do with shaping future policy on both the state and national levels.

I would like to urge that you carefully consider the question of whether or not physicians should be taken into Social Security. Then, fill in and return your ballot, if you have not already done so. The polls close on March 15. No signature is needed on the ballot—but we do need your opinion.

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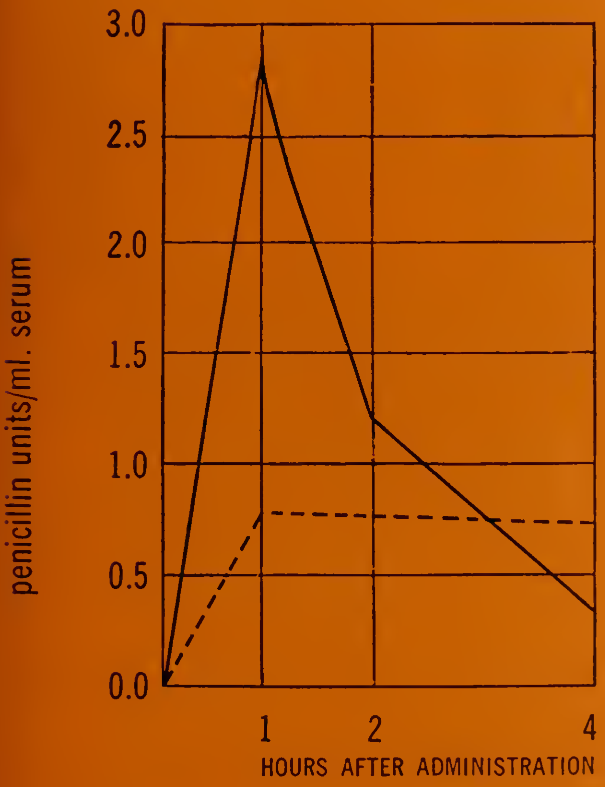
Now! A 500,000-unit tablet for higher, faster blood levels than from injected procaine penicillin



Supplied: PEN·VEE·*Oral* Tablets, 500,000 units, scored, bottles of 12; 200,000 units, scored, bottles of 36. Also available: BICILLIN® · VEE Tablets, 100,000 units of benzathine penicillin G and 100,000 units of penicillin V, bottles of 36.

1. Wright, W.W.: Personal communication.
2. Price, A.H.: Personal communication.

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EDITORIALS

Annual Session, 1956

All roads lead to St. Louis. That's right. Transcontinental highways, national highways, state highways or town to country roads directly or indirectly lead to St. Louis. In addition, railroads, airlines and boats bring passengers to and from St. Louis every day.

Doctor, won't you gas up and drive to St. Louis some time during the period April 8 to 11? Or, won't you get on a comfortable train, airliner or boat in order to get here? Those who live in St. Louis or St. Louis County can even take a bus or taxi if they prefer not to drive.

When you get to town, go to the Sheraton-Jefferson Hotel, 12th and Locust Streets. It was known for years as the Jefferson Hotel. Now it is the Sheraton-Jefferson Hotel.

At 12:00 noon, Sunday, April 8, the registration desk will open on the mezzanine floor. There you may register for the Annual Session of your State Medical Association. At 1:30 p.m., the House of Delegates will have its first session. You are most welcome to attend this session. Many of the problems affecting you and your practice may be discussed and solved there.

On Sunday night, at 6:30 p.m., at the Hotel Statler, the Woman's Auxiliary to the Missouri State Medical Association is sponsoring their annual clambake. You and your lady are not only cordially invited but also definitely urged to be there.

On Monday morning, at 9:00 a.m., one of the finest scientific meetings ever presented will await you. There you will hear discussions about nutrition, surgery, obstetrics, pediatrics, your liver and your patient's liver, asthma, fractures, arthritis, anemia, chest diseases, medicine and how to use it, the adequacy of medical education and a host of other subjects. Leading specialists from all over this country as well as from our state will be using those various methods of transportation previously mentioned to be in St. Louis at the proper time.

On Monday evening, you may be in a quandary. The Committee on Maternal Welfare of the Association will hold a dinner meeting and the Monday morning presentation on maternal mortality in the state will be discussed; the Committee on Civil Defense is having a dinner at which the whys and wherefores of civil defense will be presented as well as the effects that nuclear warfare would have on future generations—if there be such; if your quandary becomes too great, the Missouri Society for Neurology and Psychiatry is holding a dinner meeting. If you are an alumni of the St. Louis City Hospital, the difficulty of selection is even greater for a dinner meeting is being held at the LeChoteau Restaurant on that evening. Maybe you prefer to visit with one of the many small groups that will gather.

The Annual Banquet in Honor of Past Presidents will be held on Tuesday, April 10, at 7:30 p.m. at the Sheraton-Jefferson Hotel. Dr. Elmer Ellis, President of the University of Missouri, will be the guest speaker. Here is an opportunity to hear an important message from one of our leading citizens. Victor B. Buhler, M.D., Kansas City, President, will preside, and will install Carl F. Vohs, M.D., St. Louis, as President.

Doctor, won't you take one of those means of transportation to St. Louis, April 8 through 11? You really can't afford to miss it, can you? And if you can't think of another reason for coming, come see your old friends.

Why a Medical Education Week?

In the first nationwide observance of Medical Education Week, April 22 to 28, the Missouri State Medical Association has joined with the medical schools and other allied medical and health organizations to present a program of information.

Specifically, Medical Education Week has three functions: (1) to focus national attention on the significance of medical education and the problems of medical schools; (2) to bring home to the public contributions of medical science to American life, and (3) to foster public interest, through wide public knowledge, in the private support of medical education.

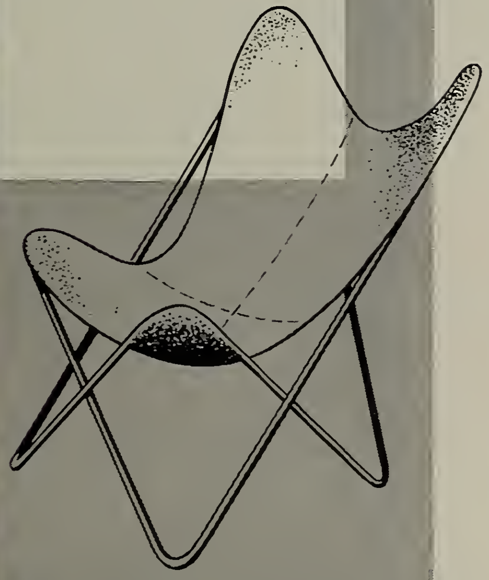
These three goals can be achieved through the use of all media of communication: newspaper coverage and editorials, radio and TV interviews, medical school open houses and presentations to civic and fraternal groups. These goals will be achieved, however, only if our entire membership comes forth to participate. Medical Education Week is a mass education campaign requiring the manpower of the entire Association.

These are the facts to be dramatized: the nation's eighty-one schools are enrolling and graduating more physicians and providing greater research facilities than at any time in history. Translating these achievements in terms of community understanding, they mean the United States, largely because of its excellent medical schools, will continue to be the healthiest nation in the world. A healthier people, protected by expert medical care, attains maximum industrial produc-

(Continued on page 210)

FOR HYPERTENSION

"AN ALLIANCE
OF THE CLASSIC
AND CONTEMPORARY"



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Theominal R. S. offers both the vasodilator and myocardial stimulant actions of theobromine with Luminal and the moderate central hypotensive effect of Rauwolfia serpentina. Gentle sedation calms the patient and a feeling of "relaxed well-being" is established. With Theominal R. S. the therapeutic potency of each of the components is enhanced and the chance of a patient's sensitivity to any one drug is lessened.

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Theobromine	0.32 Gm. (5 grains)
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DOSE: 1 tablet two or three times daily.

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News

The tenth annual John Auer lecture, sponsored by the Phi Beta Pi fraternity, was presented by **William A. Sodeman**, M.D., Columbia, on February 10 at the St. Louis Medical Society. His subject was "Current Therapy of Atherosclerosis."

New officers of the staff of St. Francis Hospital, Washington, were elected in December. They are **Frank G. Mays**, M.D., president, **L. O. Muench**, M.D., vice president, and **G. M. Workman**, M.D., secretary and treasurer.

A family dinner celebrated the 91st birthday of **Charles A. White**, M.D., St. Louis, on January 23. Dr. White still maintains an office.

At the end of January, **Roy R. Haley**, M.D., Brookfield, retired after thirty-six years of practice and will retire to California.

The Medical Staff Association of St. Luke's Hospital, St. Louis, recently elected **William G. Becke**, M.D., as president. **Carl A. Wattenberg**, M.D., was elected vice president, and **Herbert C. Wiegand**, M.D., secretary-treasurer.

A consultant clinic in cerebral palsy was conducted by **R. E. Bruner**, M.D., Kansas City, in Aberdeen, S. D., on February 1. He also advised with the district medical society there on plans for a cerebral palsy program for the area.

Termed "Joplin's last horse and buggy doctor," **Ed James**, M.D., retired from practice on January 31 at the age of 85 and after fifty-two years of practice.

A new member of the executive committee of the Kansas City Hospital Association is **Beryl I. Burns**, M.D.

The *Poplar Bluff Republic* of January 28 carried an article about **John D. Van Cleve**, M.D., entitled " 'Baby Doctor' of Malden Has Become Somewhat of a Writer."

The administrative board of St. Louis University School of Medicine recently appointed **Alphonse McMahon**, M.D., St. Louis, as chief of the department of internal medicine of St. John's Hospital. Dr. McMahon is chief of staff of the hospital.

Forty-seven St. Joseph physicians have contributed $70,080 to the building fund of the St. Joseph Hospital.

At a meeting of the Kansas City Branch of the South Central Section of the American Urological Association on January 25, **Paul N. Johnstone**, M.D., spoke on "Acute Kidney Failure" and **C. Laurence Johnson**, M.D., spoke on "Hemoglobinuric Nephrosis."

At a spring congress at the Gill Memorial Eye, Ear and Throat Hospital, Roanoke, Virginia, **Herbert J. Rinkel**, M.D., Kansas City, appeared as a guest speaker.

"Learning to Live With Your Heart" was the subject presented by **Earl L. Loyd**, M.D., Jefferson City, at the Pettis County Medical Forum on January 17.

The annual meeting of the Kansas City Social Hygiene Society was addressed by **B. Y. Glassberg**, M.D., St. Louis. His subject was "Can Youth Promote His Own Comfort in Living?"

The St. Louis City Hospital Alumni Association will be held April 9 at the LeChoteau Restaurant, St. Louis. All former interns, residents and staff members are invited to attend. A social hour is scheduled for 6:30 p.m. with dinner at 7:30 p.m. **Drennan Bailey**, M.D., 634 North Grand, St. Louis 3, is handling reservations.

A grant of $4,000 had been received by **Morton D. Pareira**, M.D., from Mead Johnson and Company for research in the role that nutrition plays in surgical operations.

Speaker at the first annual convention of the Missouri State Nursing and Allied Homes Association was **Charles E. Martin**, M.D., Ferguson.

The Child Guidance Center of St. Joseph had as its speaker at its annual luncheon in January, **H. V. Guhleman**, M.D., Jefferson City. **Thompson E. Potter**, M.D., St. Joseph, presided at the meeting.

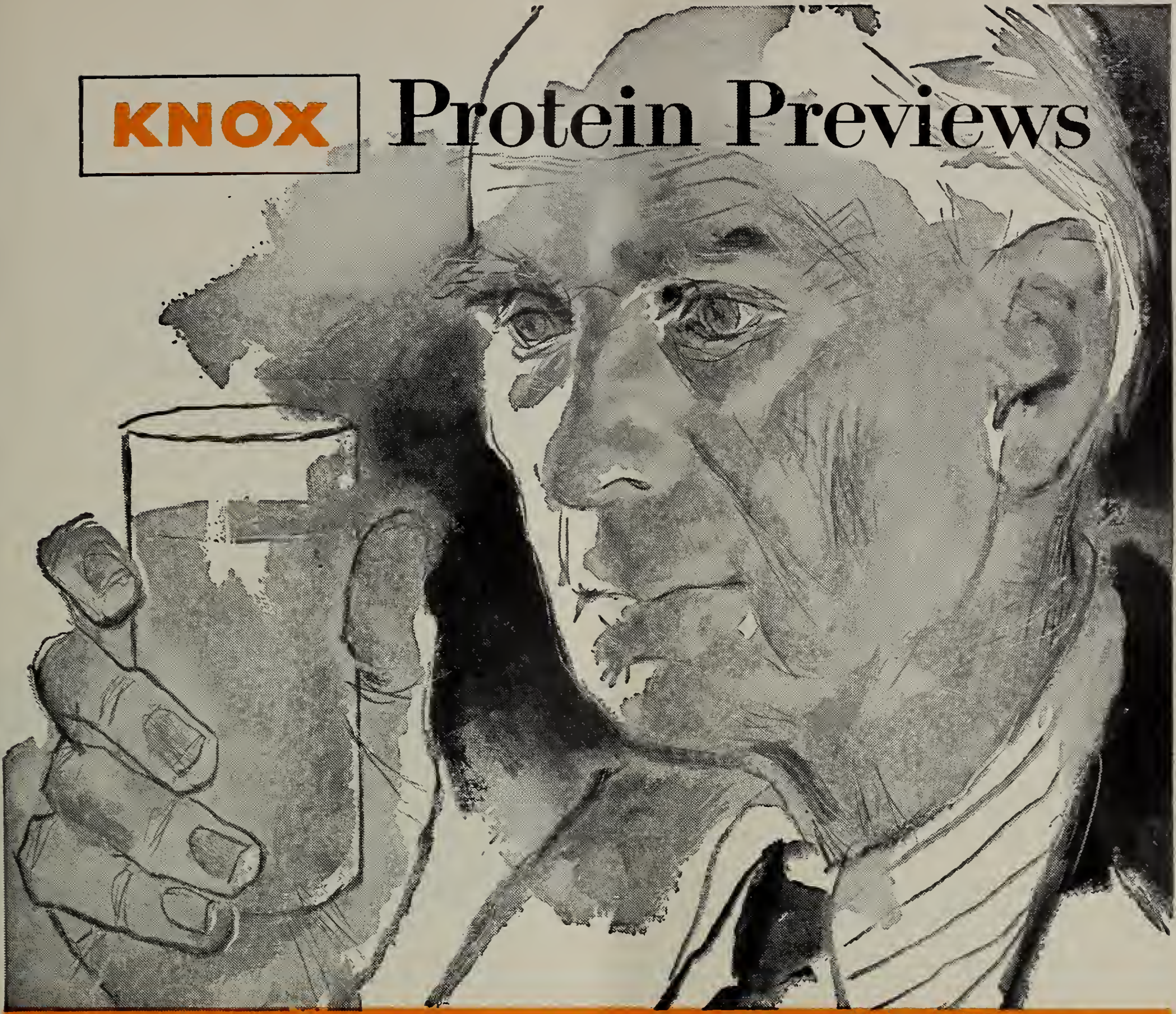
A guest of **Merritt L. Gentry**, M.D., Springfield, on January 7, was his father, Jasper L. Gentry, M.D., Ava, to celebrate the father's 85th birthday.

Fifty-five members attended the first regular meeting of the Central Missouri Chapter of the American College of Surgeons at Columbia on January 17. John Howard, M.D., Atlanta, spoke on "Acute Pancreatitis and Its Sequelae."

The Wallis Smith Trust Foundation, to provide funds for Drury College and the School of the Ozarks, has been established by **C. Souter Smith**, M.D., in honor her late husband. Dr. C. Souter Smith succeeded Dr. Wallis Smith on the board of trustees of Drury College after Dr. Smith's death.

At St. Patrick's Cathedral in New York on January 13, **Alphonse McMahon**, M.D., St. Louis, received appointment as Knight of the Sovereign Order of Malta in recognition of distinguished service to the Catholic Church.

"Your Heart" was the topic discussed on the February radio program of the Buchanan County Medical



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Knox Gelatine is an excellent non-residue protein which is easy to chew and readily digested and assimilated. As a vehicle for many foods, Knox Gelatine brightens bland diets, giving a new interest to jaded appetites. As a concentrated protein drink, Knox Gelatine supplies seven out of eight essential amino acids and a majority of the other amino acids composing protein.

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Professional Service Department No. SJ-15.
Johnstown, N. Y.

Indicate number of special diet booklets desired for your patients opposite title:

GERIATRIC________ REDUCING________
DIABETIC________ CONVALESCENT________

YOUR NAME AND ADDRESS

Society. **Lucien W. Ide**, M.D., served as moderator and the panelists were Drs. **William H. Ames, Martin H. Christ, Orville Dawson** and **H. E. Petersen.**

The Optimist Club of Kansas City had as their December speaker **Edward H. Hashinger**, M.D., Kansas City, who spoke on "What Medical Science Is Doing About the Aging and the Aged."

The Kansas City Council of the Navy League of the United States has named **Ralph E. Duncan**, M.D., Kansas City, as vice president.

Two new members of the board of directors of the Kansas City Rehabilitation Institute are **Garrett Pipkin**, M.D., and Mr. W. H. Bartleson, Kansas City.

"Transrectal Prostatic Biopsy" was the subject of a paper presented by **Mark M. Marks** before the Pan American Congress of Gastroenterology in Havana, Cuba, on January 26.

New officers of the medical staff of the Neurological Hospital, Kansas City, are **Paul Hines**, M.D., president; **John D. DeMott**, M.D., and **Richard F. Schneider**, M.D., vice presidents, and **G. Wilse Robinson, Jr.**, M.D., secretary-treasurer.

The annual meeting of the Missouri Society of Anesthesiologists will be held March 4 at the Chase Hotel, St. Louis, beginning at 10:30 a. m. At a 1:30 p. m. session Jeno Krama, M.D., Omaha, will speak on "The Relationship of Adrenocortical Function and Vascular Response to Stress in General and to Anesthesia and Surgery in Particular," and Theodore E. Weichselbaum, M.D., St. Louis, will speak on "An Attempt to Evaluate Adrenal Cortical Responses Following Elective Surgery."

NEW MEMBERS

Atwood, John M., M.D., 209 W. 66th St., Kansas City. Jackson County.

Breen, Lois T., M.D., 3210 E. 23rd St., Kansas City. Jackson County.

Comeau, Richard, M.D., Davis Hosp., Dexter. Semo County.

Decker, Albert I., M.D., 3000 W. 73rd St., Kansas City. Jackson County.

Donaldson, Robert C., M.D., 915 N. Grand Blvd., St. Louis. St. Louis Medical Society.

Ellsworth, Willard, M.D., Cainsville. Grand River Medical Society.

Fox, William J., M.D., 830 Argyle Bldg., Kansas City 6. Jackson County.

Hellerstein, Stanley, M.D., 1710 Independence Ave., Kansas City. Jackson County.

Hirschboeck, Elizabeth J., M.D., 3210 E. 23rd St., Kansas City. Jackson County.

Jorel, Louis E., M.D., 1515 Lafayette, St. Louis. St. Louis Medical Society.

Kennoy, John J., M.D., 501 Metropolitan Bldg., St. Louis. St. Louis Medical Society.

Kells, William A., M.D., 12921 Grandview Rd., Grandview. Jackson County.

Kennard, George K., M.D., St. Mary's Hospital, Kansas City. Jackson County.

Lichty, Charles A., M.D., 106 E. Washington, Jackson. Cape Girardeau County.

MacNaughton, Robert A., M.D., St. Joseph Hospital, Kansas City. Jackson County.

McGinty, Charles P., M.D., 1912 Broadway, Cape Girardeau. Cape Girardeau County.

Miller, Dean M., M.D., 830 Argyle Bldg., Kansas City. Jackson County.

Nibbe, Albert F., M.D., Bethany Clinic, Bethany. Grand River Medical Society.

Nunnelly, Gordon M., M.D., 937 Broadway, Cape Girardeau. Cape Girardeau County.

Rhodes, Richard C., M.D., General Hospital No. 1, Kansas City. Jackson County.

Satterwhite, George R., M.D., 1515 Lafayette, St. Louis. St. Louis Medical Society.

Springer, James E., M.D., 1025 Winchester, Kansas City. Jackson County.

Stotts, Charles S., M.D., 330 W. 47th St., Kansas City. Jackson County.

Szabados, Ernest D., M.D., 309 W. Kansas, Independence. Jackson County.

Thompson, Charles L., M.D., General Hospital No. 1, Kansas City. Jackson County.

True, Otis H., M.D., 830 Argyle Bldg., Kansas City. Jackson County.

Whitmore, J. Stewart, M.D., 1010 Rialto Bldg., Kansas City. Jackson County.

Young, Calvin C., Jr., M.D., 830 Argyle Bldg., Kansas City. Jackson County.

Zimmerman, William H., M.D., St. Joseph Hospital, Kansas City. Jackson County.

DEATHS

Reed, Henry L., M.D., Licking, a graduate of Barnes Medical College, 1904; honor member of the South Central Counties Medical Society; aged 77; died December 20.

Ross, Pren J., M.D., Grant City, a graduate of the National University of Arts and Sciences, 1915; member of the Nodaway-Atchison-Gentry-Worth County Medical Society; aged 69; died January 3.

Simmons, Sterling P., M.D., Marshall, a graduate of St. Louis University School of Medicine, 1915; member of the Saline County Medical Society; aged 70; died January 10.

Baker, William M., M.D., St. Louis, a graduate of Beaumont Medical College, 1901; honor member of the St. Louis Medical Society; aged 85; died January 13.

White, T. Wister, M.D., St. Louis, a graduate of the University of Virginia Medical School, 1907; honor member of the St. Louis Medical Society; aged 77; died January 17.

Gist, William L., M.D., St. Louis, a graduate of the University Medical College of Kansas City, 1906; honor member of the Jackson County Medical Society; aged 75; died January 25.

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SAINT LOUIS

Missouri Medical Meetings

American Academy of Allergy, Chase Hotel, St. Louis; postgraduate review, Feb. 4-5; scientific session, Feb. 6-7-8, 1956.

Missouri State Medical Association, St. Louis, April 8-11, 1956.

St. Louis Pediatric Society—second Thursday of each month, September through May at Medart's Restaurant, 8:00 p.m.

Component Society Meeting Dates

Audrain County Medical Society—second Thursday of each month.

Barton-Dade County Medical Society—third Wednesday of each month.

Benton County Medical Society—meets only on call.

Boone County Medical Society—first Tuesday of each month.

Buchanan County Medical Socitey—first Wednesday of each month.

Butler-Ripley-Wayne County Medical Society—first Wednesday of each month.

Callaway County Medical Society—third Thursday of each month.

Cape Girardeau County Medical Society—first Monday of each month.

Chariton-Macon-Monroe-Randolph County Medical Society—second Thursday of each month September through May.

Clay County Medical Society—last Tuesday of each month.

Clinton County Medical Society—meets only on call.

Cole County Medical Society—first Monday of each month.

Cooper County Medical Society—first Monday after the 15th of each month.

Dallas-Hickory-Polk County Medical Society—first Wednesday of each month.

Dunklin County Medical Society—third Tuesday of each month.

Franklin-Gasconade-Warren County Medical Society—last Tuesday of each month at the St. Francis Hospital, Washington, at 12:30 p.m.

Grand River Medical Society (Caldwell-Carroll-Livingston, Grundy-Daviess, Harrison, Linn, Mercer, DeKalb)—second Thursday of each month.

Greene County Medical Society—fourth Friday of each month.

Henry County Medical Society—meets only on call.

Holt County Medical Society—meets only on call.

Howard County Medical Society—meets only on call.

Jackson County Medical Society—fourth Tuesday of each month execpt June, July and August, at auditorium of General Hospital No. 1.

Jasper County Medical Society—second Tuesday of each month, September through May.

Jefferson County Medical Society—meets only on call.

Johnson County Medical Society—meets only on call.

Laclede County Medical Society—second Monday of each month at 6:00 p.m., at the Louise Wallace Hospital, Lebanon.

Lafayette-Ray County Medical Society—second Tuesday of each month at 7:30 p.m., at the Victory Cafe, Lexington.

Lewis-Clark Scotland County Medical Society—meets only on call.

Lincoln-St. Charles County Medical Society—third Thursday of each month.

Marion-Ralls-Shelby County Medical Society—fourth Tuesday of each month. 7:30 p.m.

Miller County Medical Society—meets only on call.

Mineral Area County Medical Society (St. Francois-Iron-Madison-Washington-Reynolds-Ste. Genevieve)—fourth Thursday of each month.

Moniteau County Medical Society—second Thursday of each month.

Newton County Medical Society—meets only on call.

Nodaway-Atchison-Gentry-Worth County Medical Society—first Monday in February, April, October and December.

North Central Counties Medical Society (Adair-Schuyler-Knox-Sullivan-Putnam)—meets only on call.

Ozarks Medical Society (Barry-Lawrence-Stone-Christian-Taney)—second Tuesday of each month September through June.

Pemiscot County Medical Society—third Thursday of each month.

Perry County Medical Society—second Thursday of each month.

Pettis County Medical Society—third Monday each month September through May.

Phelps-Crawford-Dent-Pulaski-Maries County Medical Society—fourth Thursday of each month.

Pike County Medical Society—third Tuesday of each month.

Platte County Medical Society—meets only on call.

St. Louis County Medical Society—second and fourth Wednesday of each month.

St. Louis Medical Society—first, third and fifth Tuesday of each month October through May.

Semo County Medical Society (Stoddard, New Madrid, Mississippi, Scott)—third Wednesday of each month September through May.

South Central Counties Medical Society (Howell-Oregon-Texas-Wright-Douglas-Ozark)—fourth Wednesday of each month.

Vernon-Cedar County Medical Society—meets only on call.

Webster County Medical Society—meets only on call.

West Central Missouri Society—second Thursday of each month.

Musings of the Field Secretary

The Rural Health Committee of the Missouri State Medical Association met in Jefferson City, Sunday, January 22, to review various projects, relating to Missouri rural health problems, some recently completed, others currently in effect and some to be considered.

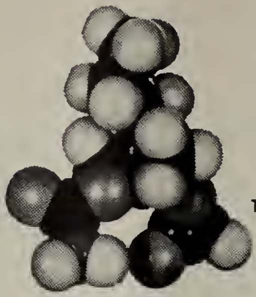
The recently published report of the study in twenty-seven counties of non-metropolitan Missouri of the medical and hospital services received by the indigent and medically indigent, was discussed. Copies of this report had previously been sent to members of the Committee for study. Numerous items and statistics contained in the Survey report came in for special consideration in the discussion.

The report of the Medically Indigent Survey, which was carried on by the Institute for Research in the Social Sciences at the University of Missouri, was turned over to the Missouri Health Council, its sponsor, in October 1955. The Health Council has made the report available to the public.

Copies of the publication entitled "Medical Services Received by the Medically Indigent Population of Non-Metropolitan Missouri: A Survey of 27 Counties, 1953-54," may be obtained from the Missouri Health

(Continued on page 211)

The Committee on Rural Medical Service met on Jan. 22.



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1. Selling, L. S.: J.A.M.A. **157:** 1594, 1955. **2.** Borrus, J. C.: J.A.M.A. **157:** 1596, 1955.

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Councilor District News

FIRST COUNCILOR DISTRICT

DONALD M. DOWELL, CHILLICOTHE, COUNCILOR

Grand River Medical Society

The Grand River Medical Society met January 12, at the Strand Hotel, Chillicothe. There was a good attendance of both doctors and the Woman's Auxiliary.

Among the guests were three pharmaceutical representatives and Miss Blance Bartlett, a guest of the Auxiliary. After a fine dinner, the guests were introduced. The Auxiliary then retired to their meeting and the scientific program was presented by Dr. Caryl A. Potter, internist, St. Joseph, who spoke on "Quixotic Specifics and a Metabolic Myth." He gave a fine presentation of an interesting subject followed by questions and discussion.

The transfer of Dr. Willard Ellsworth, who has recently located at Cainsville, from the medical society of the County of New York was presented to the Society and by unanimous vote, Dr. Ellsworth was elected to membership.

The application for membership of Dr. Albert F. Nibbe, who has recently joined the Bethany Clinic in Bethany, was presented with the favorable report of the Board of Censors, and he was elected to membership by unanimous vote.

The minutes of the last meeting were read and approved. There being no further business, the Society adjourned.

E. A. Duffy, M.D., *Secretary*

SECOND COUNCILOR DISTRICT

W. F. FRANCKA, HANNIBAL, COUNCILOR

Chariton-Macon-Monroe-Randolph County Medical Society

A dinner meeting of the Chariton-Macon-Randolph-Monroe County Medical Society was held at Woodland Hospital, Moberly, Thursday night, January 12.

Among the business matters discussed by the Society was the State Polio Vaccine Program. After discussion, the Society voted to administer, free of charge, state supplied polio vaccine to indigent patients within the specified suggested age limits.

Following the business session, the scientific program was presented, which consisted of a number of interesting medical cases presented by individual members of the Society. "Scleroderma, One Case Each," was presented by Dr. F. A. Barnett, Paris, and Dr. Carl C. Weger, Keytesville, and discussed by Dr. J. W. Fleming, Moberly. "Cholangiolytic Hepatitis, Confirmed by Laparotomy and Liver Biopsy" was presented and discussed by Dr. C. C. Cohrs, Moberly. "A Case of Panhypopituitarism" was presented and discussed by Dr. Robert Hasson, Moberly, "Two Cases of Cat Scratch Fever" were presented and discussed by Dr. W. D. Chute, Moberly. "A Case of Pseudo Cyst of the Pancreas with the Successful Internal Drainage by the Roux-Y Procedure" was presented and discussed by Dr. A. P. Rowlette, Moberly.

Twenty-two physicians were in attendance.

Robert Young, M.D., *Secretary*

FOURTH COUNCILOR DISTRICT

JOSEPH C. CREECH, TROY, COUNCILOR

Lincoln-St. Charles County Medical Society

James C. Sisk, M.D., Department of Dermatology, Washington University Medical School, St. Louis, spoke at a meeting of the Lincoln-St. Charles County Medical Society at the Southern Air in Wentzville, Thursday night, February 2.

He spoke on "Common Skin Diseases and What-to-Put-on Them." This discussion was illustrated by a large group of color slides. Numerous questions were asked during Dr. Sisk's presentation.

The evening festivities began with a social hour get-together, followed by an A-1 steak dinner and then the scientific program. Following the scientific program, a number of business matters were discussed, among them a proposed Health Unit for St. Charles County and the State Polio Vaccine Program.

New officers were elected for the year 1956 and are: Dr. George E. Kister, St. Charles, President; Dr. Herbert C. McMurray, Wentzville, Vice President; Dr. W. H. Poggemier, St. Charles, Secretary-Treasurer. Delegates to the 1956 Annual Meeting of the Missouri State Medical Association are: Lincoln County, Dr. Louis P. Hetlage, Troy, delegate; Dr. E. O. Damron, Elsberry, alternate; Dr. George Kister, St. Charles, delegate; Dr. W. H. Poggemier, alternate.

The attendance at the meeting numbered thirteen.

W. H. Poggemier, M.D., *Secretary*

FIFTH COUNCILOR DISTRICT

J. LOREN WASHBURN, VERSAILLES, COUNCILOR

Audrain County Medical Society

The Audrain County Medical Society held their regular monthly meeting on January 12, in the cafeteria of the Audrain County Hospital at 7:30 p.m.

The meeting was called to order by the President, Dr. Kallenbach. The minutes and treasurer's report of the previous meeting were read and approved. There was no new business to be discussed.

The scientific program consisted of a C.P.C. conducted by Pathologist W. R. Platt, M.D., St. Louis.

The following doctors were present: Leonard L. Davis, M.D., Thomas L. Dwyer, M.D., Henry J. Ector, M.D., Charles Garcia, M.D., Ben Jolly, M.D., Glen Kallenbach, M.D., Harold Lankford, M.D., Harry F. O'-Brien, M.D., C. M. Waggoner, M.D., Edgar S. Wallace, M.D., and R. S. Williams, M.D.

As there was no further business, the meeting adjourned at 10:00 p.m.

Edgar S. Wallace, M.D., *Secretary*

Postgraduate Course at Missouri University

On Thursday night, January 26, the second in the series of six postgraduate medical education meetings at Columbia under sponsorship of the University of Missouri Medical School and the Missouri Academy of General Practice was held with some forty physicians in attendance.

The program for the evening beginning at 8:00 p.m.

50 *and eight years*

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In 1897 Benjamin Burroughs Ralph., M.D., developed methods of treating alcohol and narcotic addiction that, by the standards of the time, were conspicuous for success.

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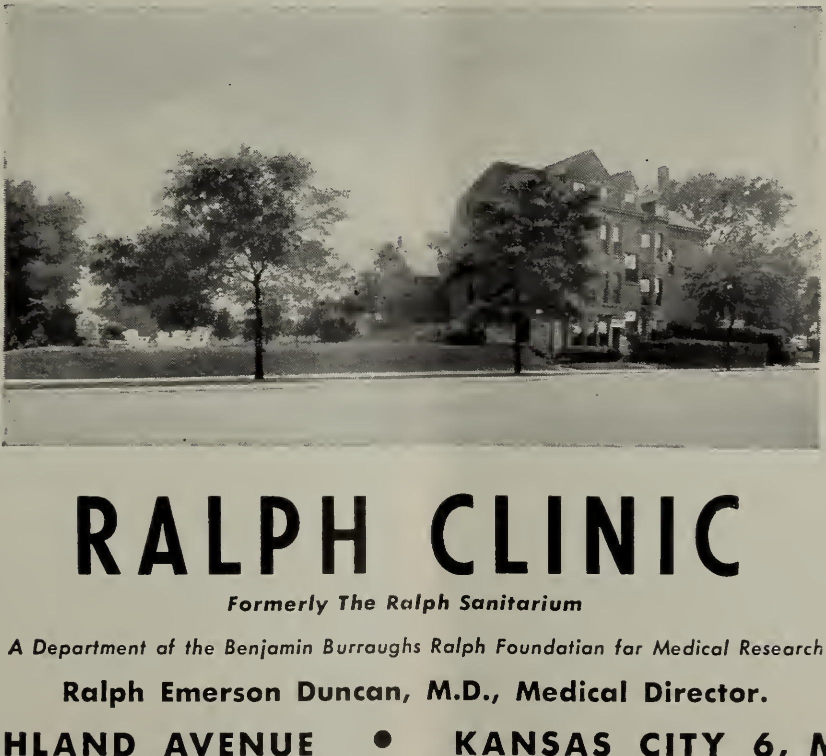

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A Department of the Benjamin Burroughs Ralph Foundation for Medical Research

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was as follows: Dr. Walter J. Burdette, Professor of Surgery at the University of Missouri Medical School, spoke on "The Problem of Hernia," and Dr. William A. Sodeman, Professor of Medicine at the University, discussed "Fever of Undetermined Origin."

Dr. T. L. Dwyer, Mexico, President of the Missouri Academy of General Practice, presided at this meeting.

J. Loren Washburn, M.D., *Councilor*

SIXTH COUNCILOR DISTRICT

C. G. STAUFFACHER, SEDALIA, COUNCILOR

West Central Missouri Medical Society

A dinner meeting of the West Central Missouri Medical Society and its Woman's Auxiliary was held at Butler, Thursday evening, January 12, with thirty-seven in attendance.

Following the usual enjoyable social hour, dinner was served.

The scientific program for the evening was given by Dr. Thomas E. McMillan, urologist, Kansas City, who discussed "Office Female Urology." This was a most interesting and informative presentation and was unusually well received by his audience.

This program was sponsored by the Missouri Academy of General Practice and counts as Category I Postgraduate Credit for Academy members.

L. P. McCann, M.D., *Secretary*

Henry, Johnson, Pettis, Saline and Adjacent County Medical Societies

On Wednesday night, January 18, sixty-four brave souls composed of doctors and their wives braved the elements of nature in the form of freezing rain to attend a joint dinner meeting of the Henry, Johnson, Pettis, Saline and adjacent county medical societies at the Pacific Cafe in Sedalia.

The evening festivities began with a social hour followed by dinner and then the special program.

The special program was given by Dr. Victor B. Buhler, Kansas City, President of the Missouri State Medical Association, speaking on the subject "Dangerous Curves Ahead," discussed a number of important matters, which vitally concern doctors and the practice of medicine.

His was a highly, informative forceful presentation, and we are indebted to Dr. Buhler for this program.

Carl D. Siegel, M.D., *Secretary*

The meeting was well attended.

Dr. Buhler chats with group.

EIGHTH COUNCILOR DISTRICT

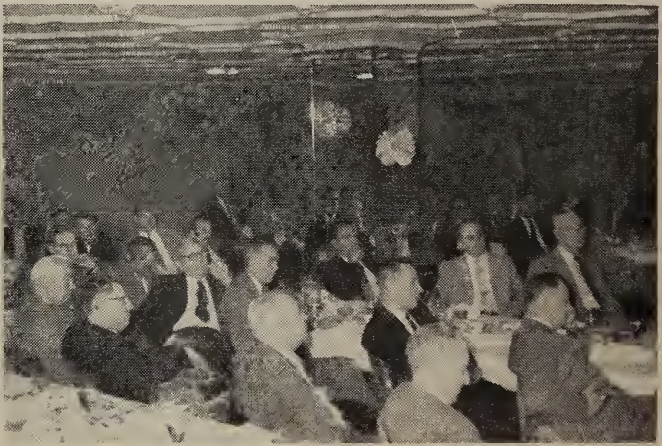
W. S. SEWELL, SPRINGFIELD, COUNCILOR

An evening dinner meeting of the 8th Councilor District of the Missouri State Medical Association was held at the Colonial Hotel in Springfield, Thursday evening, January 19.

In spite of the inclement weather, which covered all of Southwest Missouri, seventy physicians attended this important affair.

The program began at 6:00 p.m. with an informal social hour, dinner at 7:00 p.m. and a panel discussion entitled "Dangerous Curves Ahead" at 8:00 p.m. The moderator for the panel was Dr. Walter Sewell, Councilor of the District. The participants on the panel were: Dr. Victor B. Buhler, Kansas City, President of the Missouri State Medical Association, who spoke on "Federal Medical Legislation"; Dr. Carl F. Vohs, St. Louis, President-elect, Missouri State Medical Association, discussed "State Medical Legislation"; Dr. James P. Murphy, St. Louis, Chairman, Missouri State Medical Association Committee on A.M.E.F. discussed "What and Why Is the A.M.E.F.?," and Mr. T. R. O'-Brien, Executive Secretary of the Missouri State Medical Association, spoke on "Blue Cross and Blue Shield and You."

Each member of the panel discussed his particular subject for some ten minutes, and then the meeting was opened to questions and answers from all present with an informal discussion pertaining to the subjects covered.



About seventy attended the meeting.

It is felt that programs of this nature offer an excellent opportunity for busy doctors to become much better informed upon the many socio-economic problems with which the medical profession has to deal today and tomorrow.

Those who were privileged to hear this panel discussion are indebted to the panel members. We hope that they will come back soon, and that we can arrange more suitable weather conditions at that time.

W. S. Sewell, M.D., *Councilor*

Ozarks Medical Society

The Ozarks Medical Society and its Woman's Auxiliary held an evening dinner meeting at the American Legion Hall at Monett on January 10.

Dr. Vohs spoke on the panel.

Dr. Murphy discussed the AMEF.

After the evening festivities were concluded, including social hour and dinner, Dr. Ronald Elkins, Springfield, presented the scientific program on "The Management of Usual and Unusual Anorectal Disorders."

A good attendance of our Society was on hand to hear this interesting program.

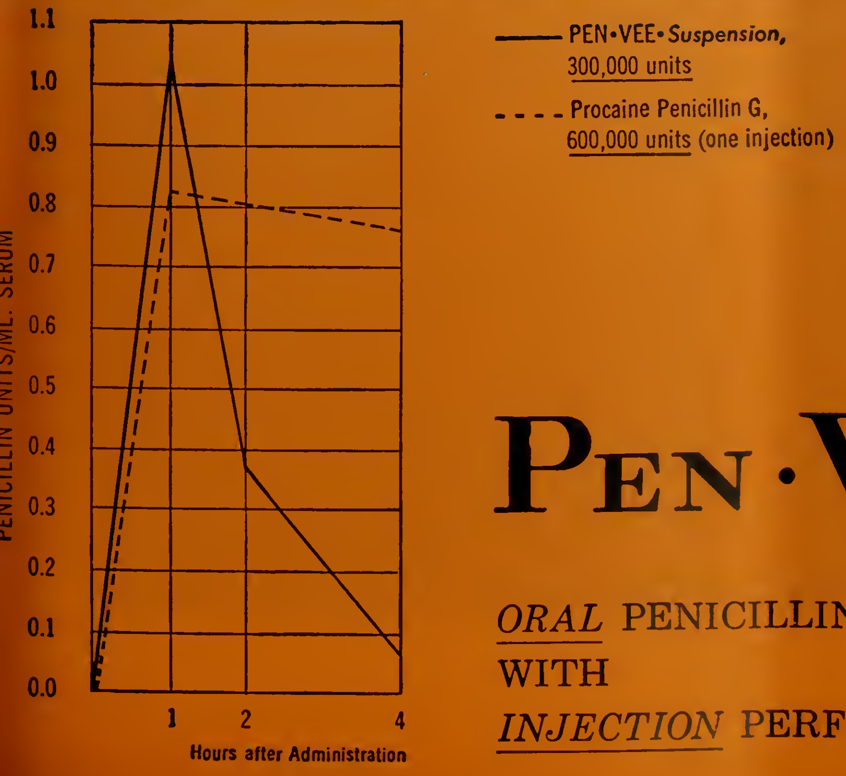
L. T. Taylor, M.D., *Secretary*

TENTH COUNCILOR DISTRICT

BEN M. BULL, IRONTON, COUNCILOR

A Postgraduate Medical Education meeting for doc-

Now! Palatable Oral Suspension Gives Higher, Faster Blood Levels than Twice the Dose of Injected Procaine Penicillin



This ready-mixed, stable, and pleasantly flavored suspension is supplied as follows: Pen•Vee•*Suspension,* 300,000 units per 5-cc. teaspoonful, bottles of 2 fl. oz. Also available: Pen•Vee•*Oral* Tablets, 200,000 units, scored, bottles of 36; 500,000 units, scored, bottles of 12.

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Bottles of 4 fluid ounces, 1 pint and 1 gallon.

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Bottles of 100.

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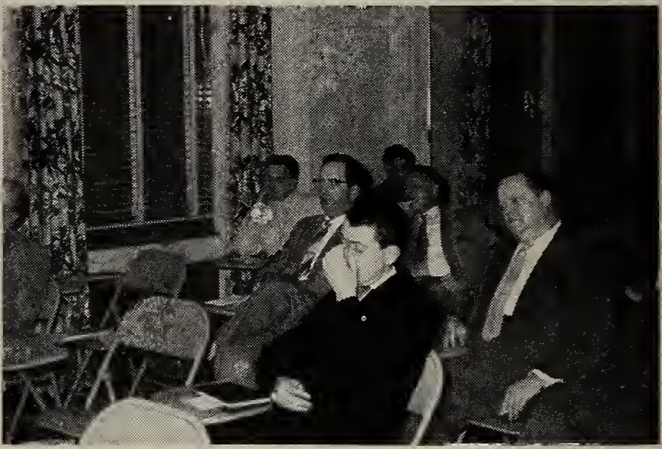
The thirty-one in attendance scattered over the room.

tors of southeast Missouri was held Tuesday night, January 17, at the St. Francis Hospital staff room in Cape Girardeau.

This meeting was sponsored by the Southeast Missouri Chapter of the Missouri Academy of General Practice in cooperation with St. Louis University Medical School.

The program for the evening beginning at 8:00 p.m. consisted of a panel discussion on "Bedside Diagnosis and Treatment of Cardiac Arrhythmias" by Drs. Donald W. Bussman, John W. Berry and John A. Nuetzel, all of St. Louis.



The meeting broke up slowly.

Thirty-one physicians attended the session. Members of the Academy of General Practice who attended this meeting receive two hours of Category I. P.G. Credit toward Academy P.G. requirements.

J. H. Trolinger, M.D., *Secretary*

Why a Medical Education Week?

(Continued from page 198)

tion, peak efficiency in the armed forces and increased earning power.

Medical Education Week will stress the positive picture of the medical school's selfless contributions to the American people. In turn, it will overcome the myths and false impressions identifying the schools as "closed shops" of the medical profession.

The A.M.A., the Association of American Medical Colleges, the National Fund and the American Medical Education Foundation, national sponsors of the week, are providing the national promotion through syndicated news features, magazine articles, network radio and TV programs; it is up to the Association to come out and "sell" the observance locally. Dr. James P. Murphy, St. Louis, chairman of the AMEF Committee, asks that each of us acknowledge our gratitude to our medical schools by doing everything we can to assist his Committee in making a great success of Medical Education Week during April 22 to 28.

Musings of the Field Secretary

(Continued from page 204)

Council, Box 658, Jefferson City, Missouri, for $2.00 per copy.

The executive committee of the Missouri Health Council has invited a fifteen member committee, selected on a state-wide basis, to serve in an advisory capacity in studying the Survey Report and in recommending further action relating to a solution of the problems with which the report was concerned.

The Committee received a report of its physician placement bureau showing that some forty-nine doctors established a practice in Missouri towns of 15,000 and less during 1955. Many of these physicians contacted the placement service headquarters in the State Medical Association office for location information before choosing their specific localities.

A matter of considerable interest receiving attention by the Committee is the increasing need for facilities in the rural area for custodial or domiciliary care. The question arises in this respect as to the relationship of need in rural Missouri for more hospital beds versus domiciliary facilities.

"The substitution of oral Neohydrin for parenteral meralluride was successfully accomplished in 97 per cent of 70 ambulatory clinic out-patients with chronic congestive heart failure."*

*Lawrence, W. E.; Kahn, S. S., and Riser, A. B.: South. M. J. 47:105, 1954.

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In clinical trials, over 80% of cases have been cleared of the infection by one course of treatment with 'Antepar.'

Bumbalo, T. S., Gustina, F. J., and Oleksiak, R. E.:
J. Pediat. 44:386, 1954.

White, R. H. R., and Standen, O. D.:
Brit. M. J. 2:755, 1953.

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"Ninety per cent of the children passed all of their ascarides . . ."

Brown, H. W.:
J. Pediat. 45:419, 1954.

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Tetracycline *Lederle*

widely prescribed because of these important advantages:

1) rapid diffusion and penetration
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3) true broad-spectrum activity (proved effective against a wide variety of infections caused by Gram-positive and Gram-negative bacteria, rickettsiae, and certain viruses and protozoa)
4) negligible side effects
5) every gram produced in Lederle's *own* laboratories under rigid quality control, and offered *only* under the Lederle label
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in prolonged illness, prescribe

ACHROMYCIN SF

TETRACYCLINE with STRESS FORMULA VITAMINS

Attacks the infection, bolsters the body's natural defense. Stress vitamin formula suggested by the National Research Council in *dry-filled, sealed* capsules with ACHROMYCIN, 250 mg. Also available: ACHROMYCIN SF ORAL SUSPENSION (Cherry Flavor), 125 mg. per 5 cc. plus vitamins.

dry-filled sealed capsules
(a Lederle exclusive!) for more rapid and complete absorption. No oils, no paste, tamperproof!

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MISSOURI STATE MEDICAL ASSOCIATION

The 98th Annual Session of the Missouri State Medical Association will be held at the Sheraton-Jefferson Hotel, St. Louis, April 8, 9, 10 and 11, 1956.

TIME AND PLACE OF MEETINGS

Sunday, April 8

12:00 p. m. Registration for Delegates, Mezzanine Floor, Hotel Jefferson.
1:30 p. m. House of Delegates, Crystal Room, Hotel Jefferson.
3:30 p. m. Reference Committee, 2nd Floor, Hotel Jefferson.

Monday, April 9

8:00 a. m. Registration, Mezzanine Floor, Hotel Jefferson.
8:00 a. m. Motion pictures, Crystal Room.
9:00 a. m. Scientific Session, Crystal Room.
10:00 a. m. Intermission to View Exhibits.
10:30 a. m. Scientific Sections, Crystal and Gold Rooms.
12:00 noon Round Table Luncheon, Gold Room.
1:30 p. m. Motion pictures, Crystal Room.
2:00 p. m. Scientific Session, Crystal Room.
3:30 p. m. Intermission to View Exhibits.
4:00 p. m. House of Delegates, Crystal Room.
5:00 p. m. Reference Committees, 2nd Floor, Hotel Jefferson.
6:00 p. m. Fraternity, Alumni and Special Society dinners and meetings.

Tuesday, April 10

8:00 a. m. Registration, Mezzanine Floor, Hotel Jefferson.
8:00 a. m. Motion pictures, Crystal Room.
9:00 a. m. Scientific Session, Crystal Room.
10:00 a. m. Intermission to View Exhibits.
10:30 a. m. Scientific Sections, Crystal and Gold Rooms.
12:00 noon Round Table Luncheon, Gold Room.
1:30 p. m. Motion pictures, Crystal Room.
2:00 p. m. Scientific Session, Crystal Room.
7:30 p. m. Annual Banquet, Gold Room. Dr. Elmer Ellis, President, University of Missouri, Speaker.

Wednesday, April 11

8:00 a. m. Registration, Mezzanine Floor, Hotel Jefferson.
8:00 a. m. Motion pictures, Crystal Room.
9:00 a. m. Scientific Session, Crystal Room.
10:00 a. m. Intermission to View Exhibits.
10:30 a. m. Scientific Session, Crystal Room.
1:30 p. m. House of Delegates, Crystal Room.

SCIENTIFIC PROGRAM

Monday, April 9, 1956, Crystal Room, Sheraton-Jefferson Hotel

VICTOR B. BUHLER, M.D., Kansas City, Presiding

8:00 a. m. Motion pictures.

9:00 a. m. Acute Arthritis: Problems in Diagnosis and Management, J. H. Killough, M.D., Columbia.

The differential diagnosis of the acute attack of arthritis is at the same time both difficult and urgent. The difficulty frequently lies in not bearing in mind the possibility of certain entities and the awareness of their clinical characteristics in the earliest stages. Urgency is demanded so that one not lose the opportunity to initiate therapy for the prevention of irreversible damage. This discussion will bring forth some of the problems in the diagnosis and management of early gouty arthritis and atypical gonococcal arthritis as well as their distinction from collagen disorders with similar symptomatology.

9:20 a. m. Discussion: John I. Mathews, M.D., Jefferson City.

Edrisal* in Dysmenorrhea

"The most satisfactory antispasmodic for use in spastic dysmenorrhea is . . . Benzedrine* Sulfate"[1]—one of Edrisal's 3 ingredients. Edrisal's other ingredients are aspirin and phenacetin.

'Edrisal' Analgesic—Antispasmodic—Antidepressant

Two tablets every 3 hours

Smith, Kline & French Laboratories, Philadelphia

Formula: Each 'Edrisal' tablet contains:

Benzedrine* Sulfate (racemic amphetamine sulfate, S.K.F.)	2.5 mg.
Aspirin	2.5 gr.
Phenacetin	2.5 gr.

1. Medical Gynecology, ed. 2, Philadelphia, 1950 *T.M. Reg. U.S. Pat. Off.

9:30 a. m. Strengthening the Nutritional Processes During Aging, Tom D. Spies, M.D., Birmingham, Alabama.

10:00 a. m. Intermission to View Exhibits.

10:30 a. m. Symposium on Surgery (Crystal Room).
Eugene M. Bricker, M.D., St. Louis, Presiding

Management of Severe Metabolic Deficits in the Surgical Patient, William D. Holden, M.D., Cleveland, Ohio.

The Rationale of Radical Mastectomy in the Treatment of Carcinoma of the Breast, John J. Modlin, M.D., Columbia.

The status of the conventional radical mastectomy in the treatment of cancer of the breast recently has been challenged by some authorities, among them McWhirter, Wangensteen and Urban. Among dissatisfactions are the realization that between 25 and 40 per cent of all breast cancer patients have lesions which are so far advanced when first examined that they are beyond hope of permanent cure; current discussion of extended operations designed to treat metastases involving the supraclavicular and internal mammary lymph node groups, and the publications of McWhirter, in which simple mastectomy and treatment of the auxiliary lymph node metastases by means of irradiation has been recommended. This presentation will offer support to the concept that the conventional radical mastectomy should still be considered and most effective and the most practical means of bringing about permanent control of breast cancer at the present time. The records of all primary previously untreated cases of cancer of the female breast examined at the Ellis Fischel Cancer Hospital in 1947, 1948 and 1949 have been reviewed.

Advances in the Surgical Treatment of Diseases of the Left Colon, Richard A. Twyman, M.D., Kansas City.

This survey intends to review the advances made in diseases due to:
A. Congenital defects. Particular attention will be applied to the surgical treatment of Hirschprung's disease, with reference to personal surgical cases.
B. Neoplasm. Present attitude toward carcinoma of the left colon, above, at and below the peritoneal reflection—in the obstructed, partially obstructed and non obstructed cases.
C. Diverticulitis. A brief review of the complications of diverticulosis, and the surgical treatment most applicable to each. Reference also to the difficulty in diagnosis between diverticulitis and carcinoma.

10:30 a. m. Symposium on Pediatrics (Gold Room).
Daniel B. Landau, M.D., Hannibal, Presiding

Kidney Disease in Children, Henry L. Barnett, M.D., New York.

Surgical Diseases of the Urethra and Bladder in Children, Grayson Carroll, M.D., St. Louis.

Diagnosis of the Noncyanotic Newborn Child With a Heart Murmur, Clark W. Seely, M.D., Kansas City.

When a cardiac murmur is detected in a noncyanotic newborn infant, the first step is to decide if it be functional or organic. If it is considered organic but the infant is asymptomatic and has normal heart size, it is justifiable to simply talk the problem over with the patients and delay further diagnostic procedures. However, if symptoms of dyspnea, cardiomegaly, poor weight gain, hepatomegaly or cardiac decompensation are present, haste must be made to rule in or out malignant ductus arteriosis, interventricular septal defect and coarctation of the aorta. The infant may thus be saved by surgical intervention.

12:00 noon Round Table Luncheon. Gold Room.
Carroll P. Hungate, M.D., Kansas City, Presiding

SCIENTIFIC SESSION

BYRON M. STUART, M.D., Boonville, Presiding

1:30 p. m. Motion pictures.

2:00 p. m. Victories or Victims: A Critique of Advances in Anemia, Claude-Starr Wright, M.D., Augusta, Georgia.

2:30 p. m. Surgical Management of Some of the Common Skin Lesions Involving the Head and Neck, James F. Dowd, M.D., St. Louis.

2:50 p. m. Discussion: Frederick J. McCoy, M.D., Kansas City.
Minot P. Fryer, M.D., St. Louis.

3:00 p. m. The Diagnosis of Aural Vertigo, James B. Costen, M.D., St Louis.

3:20 p. m. Discussion: E. L. Spence, M.D., Kennett.
Claude R. Bruner, M.D., Columbia.

3:30 p. m. Intermission to View Exhibits.

4:00 p. m. House of Delegates.

Tuesday, April 10, 1956, Crystal Room, Sheraton-Jefferson Hotel

PETER V. SIEGEL, M.D., Smithton, Presiding

8:00 a. m. Motion pictures.

9:00 a. m. Treatment of Status Asthmaticus, Stanley Hampton, M.D., St. Louis.

9:20 a. m. Discussion: Clement J. Sullivan, M.D., St. Louis.

9:30 a. m. The Adequacy of Medical Education, Melvin A. Casberg, M.D., Solvang, Calif.

10:00 a. m. Intermission to View Exhibits.

10:30 a. m. Symposium on Medicine (Crystal Room).
Roy W. Pearse, M.D., Nevada, Presiding

Treatment of Patients With Coronary Atherosclerosis, E. Sterling Nichol, M.D., Miami, Florida.

Indications for Mitral Valvulotomy, John J. Hammond, M.D., St. Louis.

Congenital Heart Disease in Adult Persons, Martin J. Mueller, M.D., Kansas City.

10:30 a. m. Symposium on Obstetrics (Gold Room).
Joseph L. Johnston, M.D., Springfield, Presiding

Functional Uterine Bleeding, Leonard H. Biskind, M.D., Cleveland, Ohio.

It has been demonstrated repeatedly in experimental animals that the liver is the site of inactivation of estrogens and androgens and there is abundant evidence that these steroids are similarly metabolized in the human liver. The ability of the liver to metabolize estrogen is controlled by certain factors, among which is the intake of adequate vitamin B complex. Inactivation of androgen in the liver proceeds without significant impairment even during deficiency of vitamin B complex. Thus, it appears that the estrogen-androgen equilibrium in the body is maintained by a normally functioning liver, and that the equilibrium can be altered by nutritional deficiencies which impair the ability of the liver to destroy estrogen. In females, the estrogen thus retained produces premenstrual tension, retention of body water, mastalgia, menometrorrhagia (functional uterine bleeding), chronic cystic mastitis and uterine myomas; following pregnancy, there is impaired involution of the uterus. In males, this syndrome leads to testicular atrophy, diminution of libido and potency, infertility and gynecomastia.

All these functional conditions respond readily to intensive and complete nutritional therapy; the organic changes likewise respond, although more slowly, and often less completely. Nutritional deficiency with the concomitant accumulation of excess estrogen and the consequent prolonged stimulation of tissues of the uterus and breast, may lead to the development of precancerous hyperplasias and ultimately, in certain cases, to definite malignancy. For the last fifteen years, we have been able to demonstrate in several large series of patients that the clinical signs and symptoms related to excess estrogen can be completely controlled by a therapeutic program that employs an adequate dosage of all the known and unknown factors of the vitamin B complex together with a high protein-low carbohydrate diet. The maintenance of such a therapeutic regime insures complete symptomatic relief which results from the restoration in most instances of the physiologic steroid balance in the body.

Bleeding Based Upon Unrecognized Pregnancy, Samuel A. Montello, M.D., Kansas City.

Menstrual aberrations do produce patterns that lead to the suspicion of an early pregnancy. Bleeding is interpreted with reference to relationships between the ovary, uterus and trophoblast. Decidual viability is dependent on hormonal and nutritional balance. Placentation of the early trophoblast may produce bleeding dependent on the mechanics of establishing a vascular bed.

Maternal Welfare Report, Joseph M. Krebs, M.D., St. Louis.

Radiation Management of Cancer of the Cervix and Fundus Uteri, Edwin C. Ernst, M.D., St. Louis.

12:00 noon Round Table Luncheon. Gold Room.
M. Pinson Neal, M.D., Columbia, Presiding

SCIENTIFIC SESSION

D. I. L. SEABAUGH, M.D., Cape Girardeau, Presiding

1:30 p. m. Motion pictures.

2:00 p. m. Epidural Hematoma as a Sequel to Head Injury: Several Variations on the Usual Course, Samuel P. W. Black, M.D., Columbia.

An injury to the head may cause bleeding into the space between the skull and the dura mater. The classical sequence of events presented by the patient with an epidural hematoma is that of head injury with cerebral concussion followed, for a few hours, by a lucid interval which then gives way to increasing drowsiness, contralateral hemiparesis, dilated pupil on the homolateral side and changes in the vital signs. There are several variations on this classical course, such, for example, as venous rather than arterial space in patients of various ages.

A high degree of suspicion that epidural bleeding may be present following head injury will be reflected in a lower mortality rate. The surgical problem presented by these patients is a formidable and exacting one which involves not only evacuation of clotted blood from, and hemastasis in, the epidural space but entails also a knowing management of the injured brain.

2:20 p. m. Discussion: Edmund A. Smolik, M.D., St. Louis.
Leonard T. Furlow, M.D., St. Louis.

2:30 p. m. Diagnosis of the Solitary Lung Lesion, Paul Maddux, M.D., Springfield.

2:50 p. m. Discussion: C. M. Waggoner, M.D., Columbia.
Paul Murphy, M.D., St. Louis.

3:00 p. m. Renal Vicissitudes, T. Leon Howard, M.D., Denver.

3:30 p. m. Intermission to View Exhibits.

4:00 p. m. Panel: Acute Surgical Emergencies.
Carl F. Vohs, M.D., St. Louis, Presiding

Emergency Care of Chest Injuries, John R. McDaniel, M.D., St. Joseph.

Due to the increasing incidence of severe chest injury, every practicing physician should have a knowledge of the principles and procedures involved in the emergency care of chest wounds. In this paper are presented diagnostic and therapeutic measures which can be used in a smaller hospital in the early management of thoracic wounds.

Bleeding Ulcer or Upper Gastrointestinal Hemorrhage, John A. Growdon, M.D., Kansas City.

Obstetric and Gynecologic Emergencies, George Wulff, M.D., St. Louis.

Acute Traumatic Abdominal Injury, Virgil E. Jeans, M.D., Joplin.

Question and Answer Period.

7:30 p. m. Annual Banquet in Honor of Past Presidents. Dr. Elmer Ellis, President, University of Missouri, Speaker. Victor B. Buhler, M.D., Kansas City, Presiding.

Wednesday, April 11, 1956, Crystal Room, Sheraton-Jefferson Hotel

CHARLES E. MARTIN, M.D., St. Louis, Presiding

8:00 a. m. Motion pictures.

9:00 a. m. The Diagnosis of Congenital Anomalies of the Hip in the Newborn Child, Henry R. McCarroll, M.D., St. Louis.

Two types of congenital anomalies are not infrequently encountered in early childhood, and the diagnosis of each often can be made at the time of birth if the positive physical findings are understood and searched for. The two anomalies are: The dysplastic hip which consists of an inadequate acetabulum and subsequent upper displacement of the head of the femur; and, secondly, a true congenital dislocation of the hip. The significant physical signs in each will be discussed. The treatment in each type of involvement will also be outlined briefly.

9:20 a. m. Discussion: Daniel L. Yancey, M.D., Springfield.

9:30 a. m. Advances in Surgery of the Pancreas, Herbert C. Lee, M.D., Richmond, Virginia.

Few organs resist surgical treatment as well as does the pancreas. Results of surgery in pancreatic lesions are not too successful because, as yet, the cause of pancreatitis is not known and there is no way of diagnosing malignant tumors until late in the course of the disease. From the experience gained in treating more than 700 cases of acute and chronic pancreatitis a routine method of therapy has been devised which gives a large measure of success. Acute pancreatitis will either be fatal, will form cysts or will develop into a chronic form which is particularly hard to treat. Results of treatment are presented. From experience, chronic pancreatitis is either relieved by one or two relatively simple operations, or else is not relieved after multiple procedures.

Pancreatico-duodenectomy is still the treatment of choice for carcinoma of the ampulla, head of the pancreas, duodenum and common duct. Experiences with the procedure are presented. It is a good operation for duodenal or ampullary carcinomas, has limited use in carcinomas of the common duct and is of little value in carcinoma of the head of the pancreas.

Surgery also has a place in the treatment of annular pancreas, pancreatic heterotopia and islet cell tumors of the pancreas, but the relative rarity of the conditions precludes more than mere mention in this report on surgery of the pancreas.

10:00 a. m. Intermission to View Exhibits.

10:30 a. m. Panel: What's New in Medicine.
Allen I. Herman, M.D., St. Joseph, Presiding

Gastroenterology Progress, Charles F. Wilson, M.D., Cape Girardeau.

The discussion will include: (1) Effect of adrenal cortical hormones on gastric secretory function. (2) Use of serum and urinary pepsinogen studies as an aid in estimating gastric function. (3) Thorazine hepatitis. (4) Relation of ammonia metabolism to hepatic coma. (5) Evidence that a factor contained in wheat and gluten is a causative agent in celiac syndrome and certain cases of sprue. (6) Treatment of hepatitis and ulcerative colitis with adrenal cortical hormones.

Chemotherapy of Leukemia, R. O. Muether, M.D., St. Louis.

Current Concepts in the Use of Antibiotics, Llewellyn Sale, Jr., M.D., St. Louis.

Antibiotic and chemotherapeutic agents have assumed a major role in the everyday practice of clinical medicine. They are among the most useful but, at times, most harmful substances the physician prescribes. A great volume of clinical and laboratory research has been done and continues to be done throughout the medical world. The amount of literature on the subject is enormous and many times encouraging results are unsupported by controlled experiments. It is the duty of each physician to be familiar with the recent developments in this field as well as the inherent pitfalls and failures that are now recognized.

New Drugs in the Treatment of the Nervous Patient, Thomas Thale, M.D., St. Louis.

Arthritis in Relation to the New Cortisone Preparations, Jack Zuckner, M.D., St. Louis.

The advent of the newer steroids is a further stride in the therapy of rheumatic diseases. Prednisone and prednisolone, two of the more important discoveries, are rapidly replacing their analogues, cortisone and hydrocortisone. Both are alike in laboratory and clinical effects and are equally superior to cortisone and hydrocortisone in antirheumatic and anti-inflammatory response. In addition, the markedly reduced mineralo-corticoid action of these newer corticoids assures them a more prominent place in the management of arthritic patients since it is possible to administer these agents in dosages sufficient to suppress symptoms without causing sodium retention or excessive potassium excretion. In actual practice, therefore, patients receiving usual therapeutic doses may be on full diets without salt restriction or potassium supplementation. It must not be assumed, however, that the basic problems in management of these diseases are solved. Undesirable physiologic effects other than electrolyte disturbances occur with prednisone and prednisolone as with the older steroids, and probably with the same frequency and severity. Caution in choice of patients, careful observation on the use of minimal effective doses are still necessary. These hormones are advances in therapy, but are still not a cure. It is hoped that other alterations in the structural composition of steroids will result in antirheumatic agents with additional beneficial effects.

Precautions in the Use of Hypertensive Agents, Robert Paine, M.D., St. Louis.

1:30 p. m. House of Delegates.

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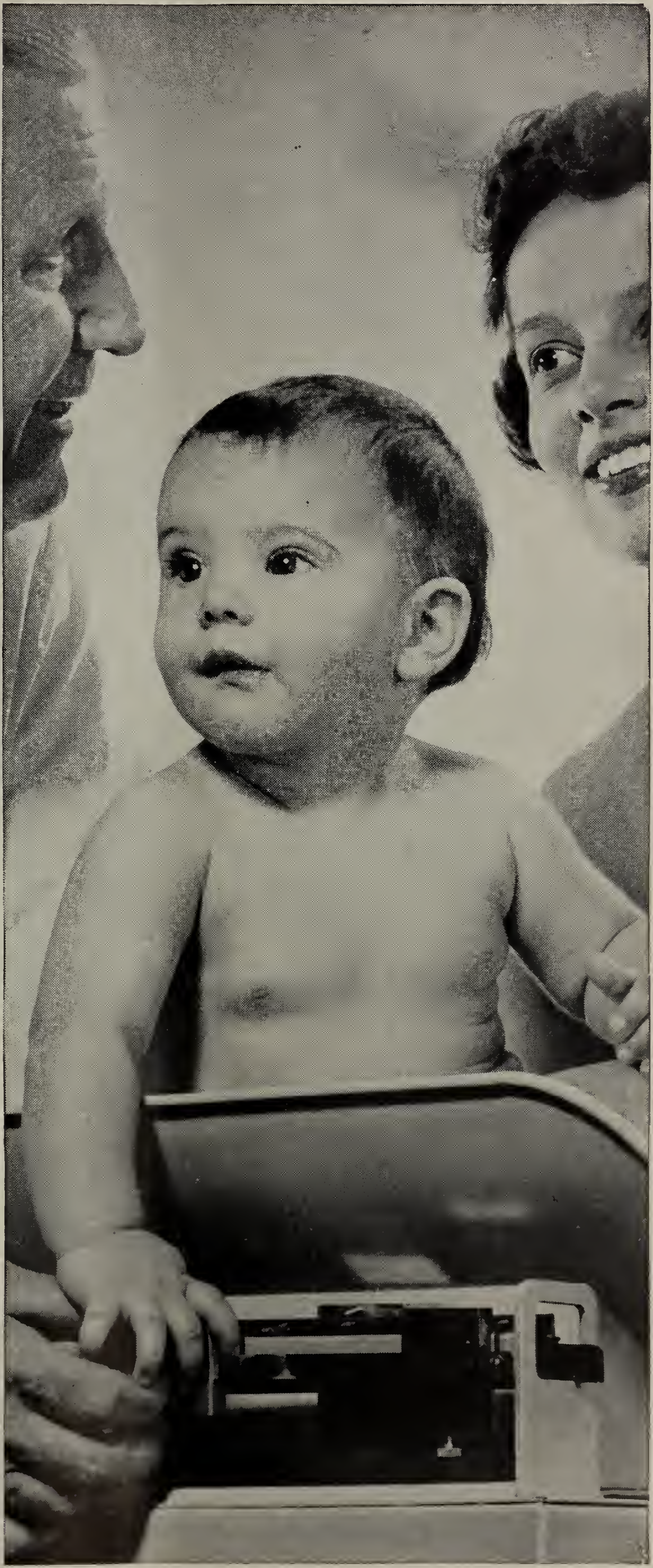

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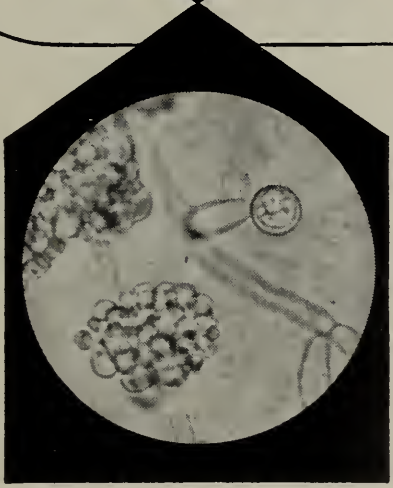

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1. Deuel, H. J., Jr.: Newer Concepts of the Role of Fats and of the Essential Fatty Acids in the Diet, Food Res. *20:*81 (Jan.-Feb.) 1955.
2. Meng, H. C.: Preparation, Utilization, and Importance of Neutral Fat Emulsion in Intravenous Alimentation, in Najjar, V. A.: Fat Metabolism, Baltimore, The Johns Hopkins Press, 1954, pp. 69-92.

The nutritional statements in this advertisement have been reviewed by the Council on Foods and Nutrition of the American Medical Association and found consistent with current authoritative medical opinion.

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St. Louis	Paul R. Whitener, St. Louis	John S. Skinner, St. Louis
Saline	George A. Aiken, Marshall	C. A. McBurney, Slater
SEMO		
Stoddard	N. J. Touhill, Dexter	Stephen Parks, Bloomfield
New Madrid	Samuel M. Sarno, Morehouse	Charles C. Reeder, New Madrid
Mississippi	Wilbur L. Davis, Charleston	John E. Dernoncourt, Charleston
Scott	Wilson J. Ferguson, Sikeston	W. O. Finney, Chaffee
South Central		
Howell	Rolling H. Smith, West Plains	Jack N. Wiles, West Plains
Oregon	C. W. Cooper, Thayer	A. T. Walker, Thayer
Texas	Garrett S. Hogg, Jr., Cabool	J. L. Spears, Cabool
Wright	R. W. Denney, Mountain Grove	S. W. Connor, Mountain Grove
Douglas	M. C. Gentry, Ava	
Ozark	Deborah Doan, Bakersfield	
Webster	Thomas M. Macdonnell, Marshfield	Carey R. Macdonnell, Marshfield
West Central		
Bates	E. E. Robinson, Adrian	A. L. Hansen, Butler
Cass	Edward S. Jones, Harrisonville	Colburn H. Ellis, Garden City
Cedar		
St. Clair		
Vernon		

TECHNICAL EXHIBITS

Mezzanine Floor, Hotel Jefferson

G. D. Searle & Co., Chicago. Booth 2.

You are cordially invited to visit the Searle Booth where our representatives will be happy to answer any questions regarding Searle Products of Research. Featured are Mictine, the new, safe, nonmercurial oral diuretic; Vallestril, the new synthetic estrogen with extremely low incidence of side reactions; Banthine and Pro-Banthine, the standards in anti-cholinergic therapy; and Dramamine, for the prevention and treatment of motion sickness and other nauseas.

Pet Milk Company, St. Louis. Booth 3.

We will be pleased to have you stop and discuss the variety of time saving materials available to busy physicians. Our representatives are on hand to discuss the merits of "Pet" Evaporated Milk for infant feeding and Instant "Pet" Nonfat Dry Milk for special diets. A miniature "Pet" Evaporated Milk can will be given to all visitors.

American Ferment Co., Inc., New York. Booth 4.

Ames Company, Inc., Elkhart, Indiana. Booth 5.

Aminet is a suppository combining Aminophylline and Pentobarbital in a nonreactive base which melts readily at body temperatures and quickly releases the active ingredients for rapid absorption. Highly effective in relieving the paroxysms of bronchial asthma; especially valuable with epinephrine-fast patients. Also of value in cardiac asthma, congestive failure, and as a diuretic

Upjohn

Rheumatoid arthritis, rheumatic fever, intractable asthma, allergies . . .

Cortef* *tablets*

Supplied:

5 mg. tablets in bottles of 50
10 mg. tablets in bottles of 25, 100, 500
20 mg. tablets in bottles of 25, 100, 500

*REGISTERED TRADEMARK FOR THE UPJOHN
BRAND OF HYDROCORTISONE (COMPOUND F)

The Upjohn Company, Kalamazoo, Michigan

25 Compressed Tablets
Cortef*, 20 mg.
Brand of hydrocortisone
Each tablet contains:
Directions for use—See accompanying insert.
The Upjohn Company
Kalamazoo, Michigan

and myocardial stimulant. Dicholin and Decholin Sodium, hydrocholeretics of choice, are also on display.

C. B. FLEET CO., LYNCHBURG, VA. BOOTH 6.

During the last fifty years Phospho-Soda (Fleet) has been a symbol of elegance in sodium phosphate medication. Fleet Enema Disposable Unit—and enema solution of Phospho-Soda (Fleet)—is a worthy companion product. The single use unit simplifies and assures satisfying preparation for proctoscopy and as a routine enema it is a boon to the hospitalized patient.

WM. P. POYTHRESS & CO., RICHMOND, VA. BOOTH 7.

The mild sedative, Solfoton, and the effective asthmatic, Mudrane, are featured at the Poythress exhibit where information and professional samples of all Poythress specialties are available to physicians attending the meeting.

THE MEDICAL PROTECTIVE COMPANY, FORT WAYNE, IND. BOOTH 8.

An unparalleled record of successful malpractice protection since 1899 distinguishes The Medical Protective Company from all others. Year in and year out 99.94 per cent of its policyholders have been completely covered under $2,500. It's a sustained record that causes Medical Protective to be considered the Doctor's most secure source of security.

LOV-E BRASSIERE COMPANY, HOLLYWOOD, CALIF. BOOTH 9.

W. B. SAUNDERS COMPANY, PHILADELPHIA. BOOTH 10.

Some of Saunders newest titles of interest to the clinical man include; Current Therapy 1956; Sodeman: Pathologic Physiology, 2nd edition; Bland: Fluid Balance, 2nd edition; Hinshaw & Garland: Diseases of the Chest; Laughlin: The Neuroses; and Davis: Christopher's Textbook of Surgery, 6th edition.

MEAD JOHNSON & COMPANY, EVANSVILLE, IND. BOOTH 11.

The new Deca vitamin family for the vital first decade of life is exhibited by Mead Johnson & Company in Booth 11. Included in the new Deva family of vitamin specialties are: Deca-Vi-Sol, for dropper dosage, a fruit flavored solution for infants and toddlers; Deca-Mulcin, for teaspoon dosage, a pleasantly flavored liquid for preschool children of 2 to 6 years; and Deca-Vi-Caps, small, easily swallowed capsules, for school agers of 6 to 10 years. All three Deca vitamin specialties supply ten nutritionally significant vitamins including A, C and D, plus seven important B vitamins.

A. H. ROBINS COMPANY, INC., RICHMOND, VA. BOOTH 12.

The A. H. Robins Company exhibit features the Pabalate "family" of antirheumatics, including the new Pabalate-HC (Pabalate with hydrocortisone) as well as Ambar, new psycho-normalizer for control of depressed mood and excessive appetite. Also shown are Allbee with C, which provides saturation dosage of B Complex vitamins with 250 mg. ascorbic acid in each capsule; and, for comprehensive cough control, Robitussin and Robitussin A-C (Robitussin with antihistamine and codeine).

ELI LILLY AND COMPANY, INDIANAPOLIS, IND. BOOTH 13.

You are cordially invited to visit the Lilly exhibit located in Booth 13. The display contains information on recent therapeutic developments. Lilly sales people are in attendance. They welcome your questions about Lilly products.

J. B. ROERIG AND COMPANY, CHICAGO. BOOTH 14.

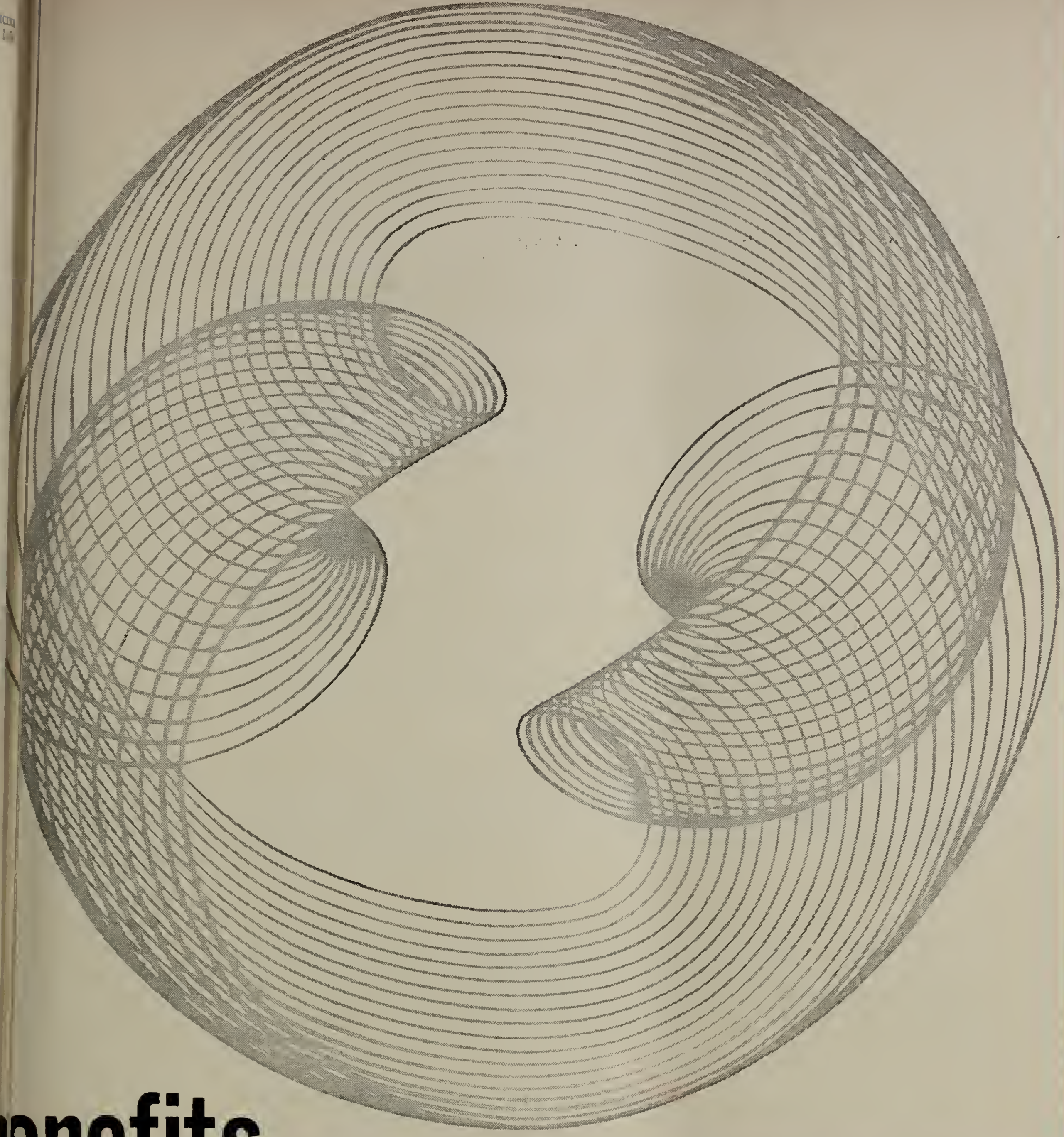
Doctors and their friends are cordially invited to visit the J. B. Roerig and Company booth where information is available on all the Roerig preparations. Stimavite, specially designed for children who do not eat well. Bonadoxin, for prevention of nausea and vomiting of pregnancy and postoperatively. Neobon, for the adult over 40. Vi-Thyro, for the vitalized thyroid. ASF, an antistress formulation. Roetinic, the 1-a-day capsule Hematinic. Also on Viterra, Viterra Therapeutic, Amplus, Obron, Obron Hematinic and Heptuna Plus. Literature and clinical material is available upon request.

C. W. ALBAN & CO., ST. LOUIS. BOOTH 15.

Alban Company invites you to visit them as a source for surgical instruments of quality, both American Stainless Steel and Stille Sweden imports, Microscopes, Laboratory Accessories, Diagnostic Equipment, and three exclusive products, the Alban Defibrillator, the Kwekleen Needle Washer, and Permaplastin for prothrombin timing. Medical books of all publishers are always in stock in the newest editions.

BURROUGHS WELLCOME & CO., INC., TUCKAHOE, NEW YORK. BOOTH 16.

The extensive research facilities of "B. W. & Co." both here and in other countries, are directed to the development of improved therapeutic agents and technics. An informed staff is at our booth to discuss our products and latest developments.



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gnificant reduction in electrolyte side effects

METICORTELONE®

ONE)

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to 5 times as potent as hydrocortisone

ema minimized · regimen simplified · more liberal diet permitted

CORTELONE is supplied as buff-colored tablets of 1, 2.5 and 5 mg., and in capsules of 2.5 and 5 mg.

TELONE, ® brand of prednisolone.

MEDCO PRODUCTS CO., TULSA, OKLA. BOOTH 17.

The Medcolator Stimulator, for the stimulation of innervated muscle or muscle groups ancillary to treatment by massage, is a low volt generator that will generate plenty of your interest. Electrical muscle stimulation is a valuable form of rehabilitation therapy. Be sure to visit our booth for a personal demonstration.

BABY DEVELOPMENT CLINIC, CHICAGO. BOOTH 18.

The Baby Development Clinic exhibit offers demonstration material: products and literature helpful in instructing prospective parents in the physical and emotional aspects of parent-child relationship arising out of daily care of their infants and children; also aids to assist in providing emotional security for their children through school ages.

PARKE, DAVIS & COMPANY, DETROIT. BOOTH 19.

Medical service members of our staff are in attendance at our exhibit for consultation and discussion of various products. Important specialties such as Penicillin S-R, Benadryl, Ambodryl, Dilantin Suspension, Vitamins, Oxycel, Milontin, Amphedase, Chloromycetin, Thrombin Topical, are featured. You are cordially invited to visit our exhibit.

SANBORN COMPANY, CAMBRIDGE, MASS. BOOTH 20.

Featured at the Sanborn Company Booth 20 is a continuous demonstration of the new Sanborn Viso-Scope, a 5 inch cathode ray oscilloscope, specially designed for use with the Sanborn direct-writing electrocardiographs, such as the famous Viso-Cardiette—as well as with more elaborate recording systems used in the research laboratory. In addition, full information is available on Sanborn systems, both direct-writing and photographic, for the recording of physiologic phenomena in from one to eight channels; on the new Sanborn Physiologic Pressure Transducer; and on the Vector System, Electronic Switch, and other new Sanborn transducers and supplementary instruments for cardiovascular diagnosis.

PFIZER LABORATORIES, BROOKLYN. BOOTH 21.

The Pfizer exhibit again is in the spotlight with its new and original concept anti-stress, anti-infective therapy—Tetracyn S. F. and Terramycin S. F. (Stress Fortified). Also, the complete line of Pfizer antibiotics and Steraject as well as the new specialties, Bonamine, Tyzine, Toclase and the complete line of steroid hormones including Cortril and the latest corticosteroid Sterane (brand of prednicolone).

S. J. TUTAG & COMPANY, DETROIT. BOOTH 22.

At the S. J. Tutag & Co. exhibit is featured Asminorel. This tablet provides both instant and prolonged relief in asthmatic conditions in a single dosage form. The outer layer, dissolved sublinqually, contains Dl-n-isopropyl Arternol. After 90 seconds, this initial relief is relayed and sustained by the nucleus which is then swallowed. This portion of the tablet contains a group of four proven therapeutic agents.

GEIGY PHARMACEUTICALS, NEW YORK. BOOTH 23.

Medomin—a new kind of barbiturate—highlights the Geigy exhibit. Indicated for safe, gentle hypnosis and reliable, sustained sedation. Medomin is unique in that a 7-member ring is attached to the barbiturate radical. Also featured is Butazolidin, nonhormonal anti-arthritic; Eurax antipruritis and scabicide; and Sterosan, bacteriostat and fungistat.

U. S. VITAMIN CORPORATION, NEW YORK. BOOTH 26.

Exhibit features an entirely new, safe vasodilator drug with three unique pharmacologic actions: (1) selectively dilates blood vessels of skeletal muscle, (2) mobilizes depot blood, (3) increases cardiac output. Thus, Arlidin (Nylidrin HCl. NNR) is indicated in treating intermittent claudication and a wide range of functional and obliterative peripheral disorders. Professional samples and literature distributed also on our complete line of nutritional and pharmaceutical specialties.

WYETH LABORATORIES, PHILADELPHIA. BOOTH 27.

Wyeth is featuring Pen.Vee.Oral* (Penicillin V) Tablets and Pen.Vee* Suspension, the new acid-stable penicillin with minimal destruction in the stomach and maximal absorption from the duodenum. Blood levels are higher than those produced with parenteral procaine penicillin G. Also featured is Equanil** (meprobamate), unique anti-anxiety agent with muscle-relaxing properties. Equanil produces equanimity in various tension states. It is eminently suitable for prolonged use as it does not build up tolerance or have cumulative effects. It is not habit-forming. * Trademark. ** Trademark licensed under U. S. Patent No. 2,724,720.

THE CENTRAL PHARMACAL COMPANY, SEYMOUR, IND. BOOTH 28.

The Central exhibit features members of the Neocylate Family of potentiated salicylate products. In addition to Neocylate, Neocylate with Colchicine, Neocylate with Cortisone and Neocyten, the newest member of the Family—Neocydex

—is presented. Literature and samples of these specialties are available to members and guests of the Missouri State Medical Association.

United Medical Equipment Company, Kansas City. Booth 29.

The new Profexray "Rocket" X-Ray, with full capacity at 100 MA, which makes this equipment 33 to 400 per cent faster than conventional 100 MA self-rectified equipment, is being exhibited. Also on display is the new PC-3 Cardiotron—direct writing—electrocardiographic machine, the new Birtcher Ultrasonic unit, the EPL portable Meta-Basal and the Raytheon Microtherm.

Milex Professional Specialties, Peoria, Ill. Booth 33.

Milex Products is displaying a full line of Gynesic Specialities, including Milex Folding Plastic Pessaries, Tricho-San, and products, useful in both fertility and infertility problems. We also show the new Clyman Endometrial Cannula, an Endo-Cervical Speculum with locking device, our self retaining Speculum for examination and repair, and the Miles Post-Partum OB Speculum. We invite your inspection.

J. E. Hanger, Inc., St. Louis. Booth 34.

Modern prosthetic devices for upper and lower extremity amputees are displayed by the Hanger organization who offer a complete service to the amputee. A representative will show you the Hanger Suction Socket Limb and the recent improvements for upper extremity prostheses.

Ciba Pharmaceutical Products, Summit, N. J. Booth 35.

The Ciba exhibit features Serpasil—the original, pure crystalline alkaloid of Rauwolfia. Serpasil has been found extremely useful as a tranquilizer in treating patients whose adjustment to life is complicated by anxiety irritability and various psychoses. Patients feel calm, yet in properly adjusted doses retain their drive and energy. It is highly effective in many conditions where barbiturates have been commonly prescribed.

A. S. Aloe Company, St. Louis. Booth 36.

Visit Booth 36 where the A. S. Aloe Company has on display a cross-section of their most complete line of physicians' supplies and equipment. Our representatives will certainly appreciate the opportunity of discussing mutual items of interest with you.

Abbott Laboratories, North Chicago, Ill. Booth 37.

E. R. Squibb & Sons, New York. Booth 38.

E. R. Squibb & Sons has long been a leader in development of new agents used in prevention and treatment of disease. The results of diligent research is quickly made available to the Medical Profession as new products or improvement on products already marketed. At Booth 38 we are pleased to present up-to-date information on these advances for your consideration.

Julius Schmid, Inc., New York. Booth 39.

An interesting and informative exhibit features Ramses Flexible Cushioned Diaphragm; Ramses Vaginal Jelly; Vagisec Jelly and Liquid, two new products embodying "Carlendacide," and recent development of Carl Henry Davis, M.D., and C. G. Grand for vaginal trichomoniasis therapy; and XXXX (Fourex) skin condoms, Ramses and Shiek rubber condoms for the control of trichomonal reinfection.

S. H. Camp and Company, Jackson, Mich. Booth 40.

H. G. Fischer & Co., Franklin Park, Ill. Booth 41.

Our exhibit features the "Spacesaver" Combination Radiographic-Fluoroscopic Unit and Examining Table with its remarkable new automatic control and our new Ultrasonic Generator with which the medical profession is getting sensational results. E. W. Sussex, our St. Louis distributor, is in attendance and will welcome an opportunity to give demonstrations and to quote today's low prices. You will be under no obligation. Your visit will be appreciated.

The Warren-Teed Products Company, Columbus, Ohio. Booth 42.

The Warren-Teed Products Company cordially invites you to visit their exhibit at Booth 42, where many new products of interest to the medical profession are displayed. Courteous representatives are in attendance at all times to discuss these products and to assist registrants in any way possible.

Winthrop Laboratories, New York. Booth 43.

Alevaire: nontoxic inhalant which thins sticky pulmonary secretions in bronchitis, bronchiectasis, and neo-natal asphyxia, is displayed.

J. B. Lippincott Company, Philadelphia. Booth 44.

J. B. Lippincott Company presents, for your approval, a display of professional books and journals geared to the latest and most important trends in current medicine and surgery. These publications, written and edited by men active in clinical fields and teaching, are a continuation of more than 100 years of traditionally significant publishing.

Bilhuber-Knoll Corp., Orange, N. J. Booth 45.

Oral Metrazol is indicated for the aged patient in whom senile confusion, convalescence or fatigue are present. New information and literature on this therapy is available and your discussion is invited. Information concerning the use of Tensodin in coronary disease as well as Dilaudid, Bromural, Quadrinal, Theocalcin and other Bilhuber chemicals is also available. You are invited to discuss these preparations with our representatives.

Storck Pharmaceuticals, St. Louis. Booth 49.

Storck Pharmaceuticals is exhibiting: Pentergot—"Inserts and Tablets," a new type suppository for the treatment of migraine, tension, vascular and histaminic cephalalgia headaches; Tetrasule, a new timesule for the control of angina pectoris over a twelve hour period; Metalex-Elixir, indicated for many geriatric symptoms and abnormal behavior patterns.

Sandoz Pharmaceuticals, Hanover, N. J. Booth 50.

Sandoz Pharmaceuticals cordially invites you to visit our display at Booth 50: Cafergot, available in oral and rectal form for effective control of head pain in migraine and other vascular headaches. Fiorinal, a new approach to therapy of tension headaches and other head pain due to sinusitis and myalgia. Bellergal, valuable as an autonomic inhibitor in a variety of functional ills—the volume of favorable clinical reports is constantly increasing. Any of our representatives in attendance will gladly answer questions about these and other Sandoz products.

Kremers-Urban Company, Milwaukee. Booth 51.

At the Kremers-Urban booth you will find new information on the ACTH-like anti-rheumatic, Salimeph-C, without side effects. See the new, most potent visceral antispasmodic Levsin Sulfate. Information on the prevention of anginal attacks through use of Nitrol Tablets and Ointment. New Amitrate for coronary insufficiency.

Hamilton-Schmidt Surgical Co., St. Louis. Booth 53.

The Hamilton-Schmidt Surgical Company is showing in Booth 53 a complete line of the latest and improved models of surgical and diagnostic equipment including the ultrasonic and microtherm diathermies, electrocardiograph, stethoscopes and medical bags.

R. J. Reynolds Tobacco Co., Winston-Salem, N. C. Booth 54.

Welcome to the R. J. Reynolds Tobacco Company Exhibit! You are cordially invited to receive a cigarette case (monogrammed with your initials) containing your choice of Camel, Cavalier King Size, or Winston, the distinctive new king size filter cigarette.

The Upjohn Company, Kalamazoo, Mich. Booth 56.

Members of the medical professions are invited to visit the Upjohn booth where members of the Upjohn Company professional staff are prepared to discuss subjects of mutual interest.

The Dick X-Ray Company, St. Louis. Booth 57.

The Dick X-Ray Company is featuring: Cambridge Audio-Visual Heart Sound Recorder. Jones Air-Basal, utilizing room air instead of bottled oxygen. Liebel-Flarsheim Basal-Meter direct reading basal metabolism unit. Dallons Medi-Sonar, the first in Ultra-Sonics. Westinghouse X-Ray equipment and accessories pictorially displayed.

The Purdue Frederick Company, New York. Booth 59.

The Purdue Frederick Company is featuring: Senokot, new non-bulk, non-irritating constipation corrective acting selectively on the parasympathetic (Auerbach's) plexus in the large bowel, physiologically stimulating the neuromuscular defecatory reflex; Pro-Mens, the multidimensional premenstrual tension therapy; Colpotab, a tested effective Tyrothricin trichomonacide; and Chlorogiene, a hygienic douche formulation, will also be presented.

Doho Chemical Corp., New York. Booth 60.

Doho Chemical Corporation is pleased to exhibit: Auralgan, the ear medication for the relief of pain otitis media and removal of cerumen; New Otosmosan, the effective, nontoxic ear medication which is fungicidal and bactericidal (gram negative-gram positive) in the suppurative and aural dermatomycotic ears; Rhinalgan, the nasal decongestant which is free from systemic or circulatory effect and equally safe to use on infants as well as the aged.

HANLEY MEDICAL EQUIPMENT CO., ST. LOUIS. BOOTH 61.

The Hanley Medical Equipment Company is displaying their Hanley Economy X-Ray filing cabinets, which are also known as the Hanley Economy Floor Space Savers. They are also displaying the Birtcher Ultra Sonic and the Birtcher Myosynchron.

MILES REPRODUCER CO., INC., NEW YORK. BOOTH 62.

Case histories, lectures and dictation may now be recorded at a 60-foot radius with Walkie-Recordall—an 8-pound, self-powered battery recorder-transcriber. It operates in or out of the closed briefcase, indoors or outdoors, while stationary, walking, riding or flying. The Voice-Activated "Self-Start-Stop" feature automatically starts and stops the recording from microphone or telephone, thus eliminating supervision and the recording of silent periods. While facilities for transcribing are available, transcription may be eliminated due to the ease of handling identifiable, compact, indexed recordings without the delay of rewinding. Up to eight hours of permanent recordings may be accumulated at intervals on an "endless" belt costing 25 cents.

RIKER LABORATORIES, INC., LOS ANGELES, CALIF. BOOTH 63.

Riker Laboratories presents Pentoxylon, a more complete therapy in angina pectoris. Pentoxylon combines the actions of Rauwiloid, the alseroxylon fraction of Rauwolfia serpentina and of penta-erythritol tetranitrate (PETN). A truly important step toward providing a solution to the total clinical problem of angina pectoris. Visit Booth 63 for complete information.

DUMAS-WILSON & CO., ST. LOUIS. BOOTH 65.

Glutalate Capsules (Sodium Free), indicated primarily for the treatment of arthritis and allied disorders; Naudox Capsules, for treatment and control of hyperemesis gravidarum; Nygram Capsules, for the relief of discomfort in migraine and tension headaches; Materna Cream, the original preparation scientifically designed for the skin during pregnancy.

THE COCA-COLA COMPANY, NEW YORK. BOOTH 66.

Ice-cold Coca-Cola served through the courtesy and cooperation Coca-Cola Bottling Company of St. Louis and The Coca-Cola Company.

Relax the best way
...pause for Coke
Time out for refreshment
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DRINK
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MISSOURI SOCIETY OF MEDICAL TECHNOLOGISTS
NINTH ANNUAL SESSION

TIME AND PLACE OF MEETINGS

Sunday, April 8, 1956

1:30 p. m. Registration, DeSoto Hotel.
2:00 p. m. Business Meeting, DeSoto Hotel.
6:00 p. m. Buffet Supper, DeSoto Hotel.

Monday, April 9, 1956—Room 1, Jefferson Hotel

8:30 a. m. Registration, Mezzanine Floor, Jefferson Hotel.
9:00 a. m. Invocation.
9:15 a. m. Scientific Session.
11:30 a. m. Exhibits.
12:30 p. m. Demonstrations, East Room.
2:00 p. m. Scientific Session.
3:15 p. m. Intermission—view exhibits.
3:30 p. m. Scientific Session.
4:30 p. m. View Exhibits.

Tuesday, April 10, 1956—Room 1, Jefferson Hotel

8:30 a. m. Registration, Hotel Jefferson.
9:00 a. m. Scientific Session.
10:15 a. m. Intermission—view exhibits.
10:30 a. m. Scientific Session.
11:30 a. m. Intermission—view exhibits and demonstrations.
2:00 p. m. Scientific Session.
4:30 p. m. View Exhibits and demonstrations, East Room.

Wednesday, April 11, 1956

9:00 a. m. Scientific Session.
10:30 a. m. Intermission to view exhibits and demonstration, East Room.
11:00 a. m. Scientific Session.
12:00 noon Intermission to view exhibits and demonstration, East Room.
2:00 p. m. Hematology Seminar.
3:30 p. m. Intermission to view Hematology demonstrations, East Room.

SCIENTIFIC SESSION

Monday, April 9, 1956—Room 1, Jefferson Hotel

Presiding: Helen Alig Dawes, B.S. M.T. (ASCP), Kansas City
Alternate: Joan Dexter, B.S. M.T. (ASCP), St. Joseph Hospital, Kansas City.

9:00 a. m. Invocation, Reverend Carl Rasche, Administrator, Deaconess Hospital, St. Louis.
9:05 a. m. Presentation of Tribute to Sister Mary Frances McRory, SSM, Rev. John J. Flanagan, S.J., Executive Director of Catholic Hospital Association, St. Louis.
9:15-11:30 a. m. Metabolism Symposium.
9:15 a. m. Serum Protein Bound Iodine Levels, Harold Wood, M.D., Medical Director of Hycel Hormone Chemistry Laboratory, Houston, Texas.
10:00 a. m. Diagnostic Tests Utilizing Radioactive Iodine (I^{131}), Sister Ann Marie Skinner, RSM, M.A. M.T. (ASCP), St. John's Hospital, St. Louis.
10:30 a. m. Basal Metabolism, Henry C. Allen, M.D., Pathologist, Director of Clinical Laboratory, Deaconess Hospital, St. Louis.
11:00 a. m. Question and Answer Panel: Harold Wood, M.D.; Sr. Ann Marie Skinner, RSM, M.A. M.T. (ASCP); Henry C. Allen, M.D.; John J. Moran, B.S. in Chemistry, Chemical Director, Hycel Hormone Chemistry Laboratory, Houston, Texas; Wilfred Konneker, Ph.D. in Nuclear Physics, Vice-President; Nuclear Consultants Incorporated, New York, N. Y. and St. Louis, Mo.
11:30 a. m. Intermission to view exhibits.
12:30 p. m. Demonstrations: Protein Bound Iodine, John J. Moran, B.S. I^{131} Uptake Study and PBI^{131} Determination, Wilfred Konneker, Ph.D.

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BAYER ASPIRIN
FLAVORED
Children's Size
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ASPIRIN
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24 TABLETS
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We will be pleased to send samples on request.

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(These demonstrations will be given in East Room and will be repeated at 3:00 p. m.)

2:00 p. m. Blood Bank Panel. Moderator, Lulu Mims, B.S. M.T. (ASCP), Deaconess Hospital, St. Louis.

Special Features of Investigation of Transfusion Reactions, Hugh Chaplin, M.D., Fellow in Hematology and Instructor, Department of Medicine, Washington University School of Medicine.
Panel members to be announced.

3:15 p. m. Intermission to view exhibits.

Presiding: Erlene Spickard, B.S. M.T. (ASCP), St. John's Hospital, Springfield
Alternate: Marie Anderson, M.T. (ASCP), Blood Bank, American Red Cross, Springfield.

3:30 p. m. General Aspects of Biological Warfare. James W. Haynes, M.D., St. Joseph Hospital, Kirkwood.
4:30 p. m. View Exhibits.

Tuesday, April 10, 1956—Room 1, Jefferson Hotel

Presiding: Jeanette Carter, Ph.D., M.T. (ASCP), Kansas City General Hospital, Kansas City
Alternate: Anne Sommer, B.S. M.T. (ASCP), St. Louis County Hospital, St. Louis.

9:00 a. m. Use of Serology in the Diagnosis of Fungus Diseases, Michael L. Furcelow, M.D., University of Kansas Medical Center, Kansas City, Kansas.
9:45 a. m. Plate Complement Fixation Tests, Audrey M. Murphy, B.S. M.T. (ASCP), Clinical Pathological Laboratories, St. Louis.
10:15 a. m. Intermission to view exhibits.

Presiding: Sister Ann Marie Skinner, RSM, M.T. (ASCP), St. John's Hospital, St. Louis
Mercedes Barry, B.S. M.T. (ASCP), Kansas City General Hospital, Kansas City.

10:30 a. m. Megaloblastic Anemias: Current Ideas as to Pathogenesis and New Diagnostic Procedures, Carl V. Moore, M.D., Busch Professor of Medicine, Washington University School of Medicine.
11:30 a. m. Intermission to view exhibits and demonstrations.

Presiding: Sister Leo Rita Volk, SSM, M.S. M.T. (ASCP), St. Mary's Hospital, St. Louis
Alternate: Sister Martin Mary Fruchtl, SSM, M.S. M.T. (ASCP), St. Mary's Hospital, Kansas City.

2:00-4:30 p. m. Pediatric Symposium.
2:00 p. m. Kidney Function Test in Infants and Children, Henry L. Barnett, M.D., Professor and Chairman, Department of Pediatrics, Einstein College of Medicine, Yesheva University, New York, N. Y.
2:45 p. m. Erythropoesis and Anemia in Early Life, James King, M.D., Assistant Professor of Pediatrics, St. Louis University School of Medicine, St. Louis.
3:30 p. m. Clinical Significance of Laboratory Tests in Pediatric Medicine, Peter Danis, Professor of Clinical Pediatrics, St. Louis University School of Medicine, St. Louis.

Wednesday, April 11, 1956—Room 1, Jefferson Hotel

Presiding: Rose Rita Schmidt, M.A. M.T. (ASCP), Firmin Desloge Hospital, St. Louis
Alternate: Mary S. Masters, M.T. (ASCP), Rolla.

9:00 a. m. Proper Handling of Clinical Material in the Microbiology Laboratory, Edith M. Rich, Ph.D. in Bacteriology, Bacteriologist, St. Louis City Hospital, St. Louis.
9:45 a. m. "New" Viruses of Respiratory Tract, R. Walter Schlessinger, M.D., Professor of Microbiology, St. Louis University School of Medicine, St. Louis.

10:30-11:00 a. m. Intermission to view exhibits and demonstrations.

Presiding: Catherine Frei, AB, M.S. M.T. (ASCP), Veterans Hospital, St. Louis

Alternate: Bernice Koster, B.S. M.T. (ASCP), Barnes Hospital, St. Louis.
11:00 a. m. Interpretation of Serology Tests for Syphilis—The Problem of the False Positives, Arthur Wright Neilson, M.D., Consultant Syphilologist, U.S. Public Health Service; Member Venereal Disease Control Committee, Missouri State Medical Association; Dermatologist, St. Louis University, St. Louis.
12:00 noon Intermission to view exhibits and demonstrations.

Presiding: Victoria Kirchoff, M.T. (ASCP), Department of Medicine, Division of Hematology, Washington University School of Medicine, St. Louis
Alternate: Genevieve Wood, B.S. M.T. (ASCP), St. Louis City Hospital, St. Louis.

2:00 p. m. Hematology Seminar—Division of Hematology, Department of Medicine, Washington University School of Medicine.

I. Laboratory Work-up of a Patient With an Abnormal Bleeding Tendency, William J. Harrington, M.D., Assistant Professor of Medicine, Washington University School of Medicine.
II. Diagnostic Use of Serum Iron Determinations, E. B. Brown, M.D., Fellow, Division of Hematology, Washington University School of Medicine.
III. Hemoglobinometry, William J. Harrington, M.D., Assistant Professor of Medicine.
IV. Abnormal Hemoglobins, Virginia Minnich, M.S. Research Associate, Washington University School of Medicine.
V. Paper Electrophoresis of Serum, Robert Jim, M.D., Fellow, Hematology Division, Washington University School of Medicine.
VI. Use of Chromium^{51} as a Diagnostic Tool, Virgil Loeb, Jr., M.D., Assistant Professor of Medicine, Washington University School of Medicine.

Hematology Demonstrations by:
Mary Ellen Swaim, B.A. M.T., (ASCP), Doris Thompson, B.S., M.T., (ASCP), Grace Arimura, B.S., M.T. (ASCP) and Victor Kirchoff, M.T. (ASCP).

PATHOLOGISTS TO MEET

The Missouri Society of Pathologists and the Kansas Society of Pathologists are sponsoring a South Central Regional Meeting of the College of American Pathologists in cooperation with the Federal Civil Defense Administration, the Public Health Service, and the Armed Forces on, "The Role of Medical Laboratories in Defense and Disaster." The meeting will be held at St. Louis University School of Medicine, 1402 South Grand Avenue, St. Louis, Missouri, on Saturday, April 7, and Sunday, April 8, 1956. There will be a social hour and dinner Saturday evening for Pathologists and their wives, and Medical Technologists. The tentative program is as follows:

Saturday, April 7, 1956

8:30 a. m. Registration
9:00 a. m. "General Aspects of Civil Defense with particular emphasis on the Health-Medical Role of the Federal Civil Defense Administration," by Dr. Paul A. Lindquist, Regional Medical Director of the Federal Civil Defense Administration.
9:20 a. m. "The Role of the Pathologist in the Initial Phase of a Catastrophe," by a representative of the Armed Forces.
9:40 a. m. "The Integration of Private and Hospital Laboratories with Public Health Laboratories in a Disaster Area," by a representative of the Public Health Service.
10:00 a. m. "The Integration of Civilian Laboratories with the Armed Forces Laboratories in a Disaster Area," by a representative of the Armed Forces.
10:20 a. m. Bacteriological and Biological Warfare:
  a. Etiological agents likely to used
  b. Detection and rapid identification of such agents
  c. Demonstrations, by representatives of the Public Health Service.
12:30 p. m. Lunch

2:00 p. m. "Survival Pattern Following Radiation Bombing," by a representative of the Armed Forces.
2:30 p. m. "Hematological Findings in Radiation Catastrophe," by a representative of the Public Health Service or Armed Forces.
3:00 p. m. "Fluid, Electrolyte and Blood Replacements in Radiation Casualties," by a representative of the Federal Civil Defense Administration.
3:30 p. m. Summary and projected needs for further study and discussion, by Dr. Paul A. Lindquist.
4:00 p. m. Question and answer period.
6:30 p. m. Social hour.
7:00 p. m. Dinner.

Sunday, April 8, 1956

9:30 a. m. "The Role of Blood Banks in Disaster Programs," by a representative of the Federal Civil Defense Administration.
10:00 a. m. A. "The Clearing House Program of the American Association of Blood Banks."
B. "The Needs for a State Blood Bank Organization," by a representative of the North Central Clearing House.
10:30 a. m. Organizational Meeting of the Missouri Blood Bank Association.

The meetings will be open to all interested physicians, medical technologists, hospital administrators and other medical and hospital personnel. For further information, write Henry C. Allen, M.D., Secretary, Missouri Society of Pathologists, 35 N. Central, Clayton 5, Mo.

News From the Medical Schools

UNIVERSITY OF MISSOURI

Gifts and Grants

A gift in the amount of $1,000 in memory of Dr. Philip C. Jeans has been received from Mrs. Jeans to be used in developing a reference library in the Department of Pediatrics. Dr. Jeans, a native of St. Louis, was formerly professor and chairman of the Department of Pediatrics at the State University of Iowa College of Medicine for many years.

Publication

Dr. William A. Sodeman, professor and chairman of the department of medicine, is editor of a new second edition of a book entitled "Pathologic Physiology: Mechanisms of Disease," published by the W. B. Saunders Company of Philadelphia.

Trips and Talks

Dr. Clarence D. Davis, professor and chairman of the Department of Obstetrics and Gynecology, attended a meeting of the Maternal Mortality Committee of the St. Louis Gynecological Society held in St. Louis, December 15.

On January 3, Drs. R. L. Jackson, Ray Hepner, C. E. Brooke, F. E. Simpson, Ray Lewis, and E. L. Washington, all of the Department of Pediatrics, participated in a panel discussion on rheumatic fever sponsored by the Boone County Medical Society. The meeting was held at the Ellis Fischel State Cancer Hospital in Columbia.

On January 11, Dr. Samuel P. W. Black, of the Department of Surgery, spoke at a staff meeting of St. Mary's Hospital in Jefferson City on the subject "Treatment of Acute Head Injuries." The following day, Dr. Black repeated his lecture at a meeting of the Seventh District Nurses Association held at University Hospitals.

On January 10, Roscoe L. Pullen, Dean, spoke on the progress of the University of Missouri School of Medicine at a meeting of the Jasper County Medical Society held in Joplin. On January 8, Dr. Pullen attended a meeting of the Missouri Health Council held in Jefferson City. On January 15 Dr. Pullen, in his capacity as associate editor of Missouri Medicine, was present at a meeting of the Editorial Board in St. Louis.

SAINT LOUIS UNIVERSITY

Dr. Louis H. Kohler, associate professor of clinical neurology and psychiatry and chief of St. Louis State Hospital, was inaugurated as the President of the St. Louis Medical Society January 3. In his inaugural address, Dr. Kohler stressed the importance of physicians taking a more active part in public education, or working with service organizations, charitable and philanthropic groups which improve community living. Dr. Daniel L. Sexton, associate professor of clinical medicine, was awarded a key of appreciation as the retiring president of the society.

Dr. James F. Dowd, senior instructor in surgery, was installed as President of the Saint Louis County Medical Society January 13. The event preceded a dinner dance held at the Le Chateau. Dr. Dowd was also recently elected Associate Chief of Staff at Missouri Baptist Hospital.

On January 17, Drs. John W. Berry, assistant professor of clinical medicine, Donald W. Bussman, senior instructor in internal medicine and John A. Nuetzel, assistant professor of clinical medicine, participated in the Southeastern Missouri Academy of General Practice meeting held at Cape Girardeau. They appeared on a panel titled "Bedside Diagnosis and Treatment of Cardiac Arrhythmias."

Dr. Otakar Machek, instructor in orthopedic surgery, has recently been named chairman of the Medical Evaluation Board of the Muscular Dystrophy Clinic at the St. Mary's Group of Hospitals of Saint

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Louis University. He also has been appointed vice president of the Greater St. Louis Chapter of the National Rehabilitation Association.

On December 21 Dr. James L. Mudd, associate professor of clinical surgery and chairman of the Section of Thoracic Surgery was honored by the Sisters of St. Mary and the staff physicians of Mt. St. Rose Hospital for his twenty-five years on the staff as chief surgeon at the Hospital.

The latter part of November Dr. Henry Pinkerton, professor of pathology and director of the department, and Dr. John P. Wyatt, professor of pathology, participated in a seminar on "Viral Infections" during the regional meeting of American College of Pathologists held at the University of Virginia, Richmond, Va.

WASHINGTON UNIVERSITY

Honor

Dr. Mildred Trotter, professor of gross anatomy, was honored as one of the ten "Women of Achievement" in St. Louis by the *St. Louis Globe-Democrat*. She was named the "Woman of Achievement" in the field of science for her outstanding work as a physical anthropologist. Last spring Dr. Trotter was elected president of the American Association of Physical Anthropologists, the first woman to hold this office. The awards, based on work during 1955 with some recognition for past service, were announced by the newspaper on January 1. The winners were honored at a luncheon January 23.

Portrait Presentation

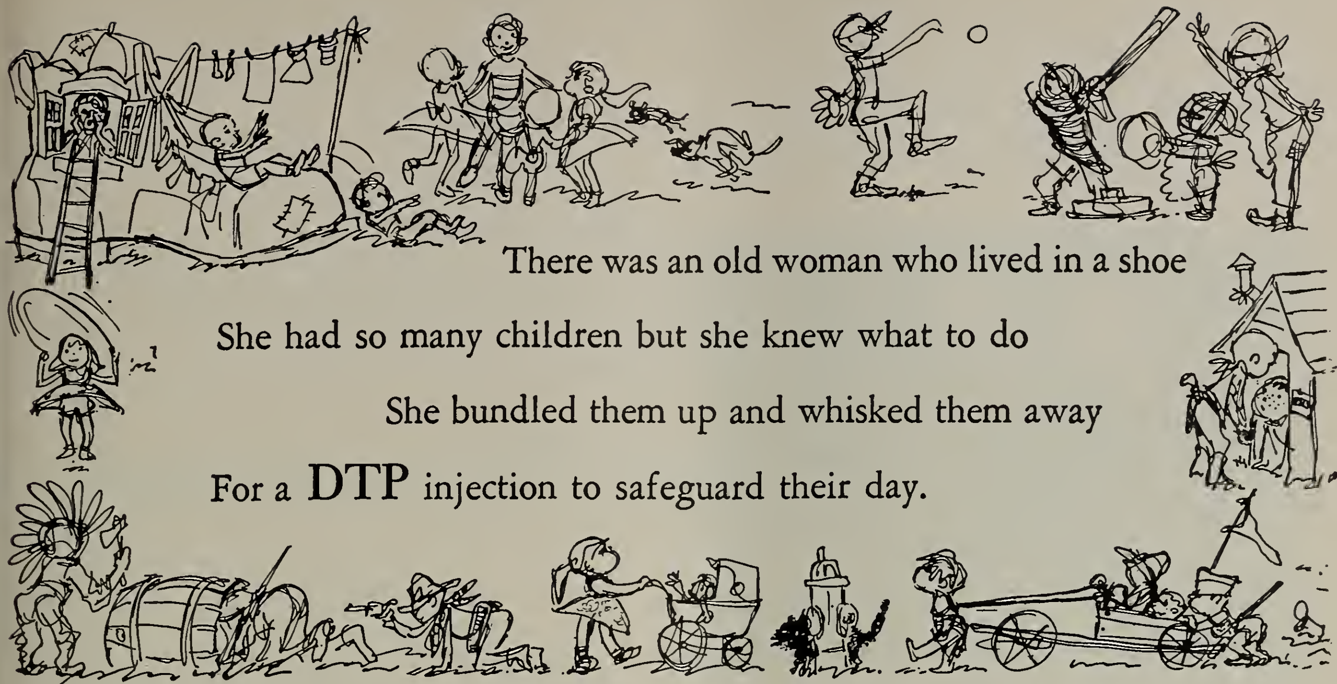
A portrait of the late Dr. J. Albert Key, painted by Charles F. Galt, was presented to Washington University School of Medicine and Barnes Hospital at a tea January 17 by his widow and son, Frank L. Key. The portrait was accepted for the medical school and hospital by Dr. Oliver H. Lowry, dean of the medical school, and Dr. Frank R. Bradley, director of Barnes and affiliated hospitals. A short talk about Dr. Key was given by Dr. Evarts A. Graham, Bixby professor emeritus of surgery. Dr. Key, who died last August, was professor of clinical orthopedic surgery at the medical school from 1924 to 1955.

Meeting

Four research papers were presented at a meeting of the Washington University Medical Society on January 25 at the medical center. Those presenting papers were: Dr. Murray Chinsky, research associate in medicine at the Jewish Hospital, and Dr. Sol Sherry, associate professor of medicine at Washington University and director of the division of medical services at the Jewish Hospital, "Serum Transaminase as a Diagnostic Aid"; Dr. Paul Berg, assistant professor of microbiology and American Cancer Society scholar in microbiology at the medical school, "An Enzymatic Mechanism of Fatty and Amino Acid Activation"; Dr. Paul A. Cibis, instructor in ophthalmology, "Effect of High Intensity Ionizing Radiation Upon the Mammalian Retina"; and Dr. Eric Reiss, American Cancer Society scholar in medicine, "Mineral Metabolism in Severely Burned Patients."

Travel

Dr. Lauren V. Ackerman, professor of pathology and of surgical pathology, recently spent a week in Puerto Rico at the invitation of the Bureau of Cancer Control of the Department of Health for the Commonwealth of Puerto Rico.



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FINANCIAL STATEMENT FOR 1955

LENNERTSON AND COMPANY
CERTIFIED PUBLIC ACCOUNTANTS

ROBERT A. LENNERTSON, C. P. A.
MEMBER—AMERICAN INSTITUTE OF ACCOUNTANTS

RICHARD J. LENNERTSON, C. P. A.
SAINT LOUIS 5, MISSOURI

February 8, 1956

Missouri State Medical Association,
634 North Grand Boulevard,
St. Louis, Missouri.

Gentlemen:

An examination has been made of the books of account of the Missouri State Medical Association for the year 1955 and a report is presented thereon together with the following statements:

Exhibit A	Balance Sheet
Exhibit B	Income Statement
Exhibit C	Statement of Committee and Meeting Expenses
Exhibit D	Dues Receivable and Membership by Counties

In connection with the statements, it should be noted that members' dues are taken into income on the cash basis; whereas the other accounts are maintained on the accrual basis. Items paid in advance, except members' dues, are shown as prepaid and carried forward to the year to which they apply.

Scope of Examination

The Balance Sheet at December 31, 1955 and the Income Statement for the year ended with that date were reviewed. Examinations or tests were made of the accounting records, in the manner and to the extent deemed appropriate, without making a detailed audit of the transactions.

Cash in banks, as shown by the books, was reconciled with the regular monthly bank statements and confirmations received from the depositaries. The petty cash fund of $25.00 and United States Savings Bonds with a par value of $55,000.00, were verified by physical inspection. Bond interest of $1,312.50 was properly accounted for on the books. Recorded cash receipts for the year were traced in total into the bank accounts as deposits, and disbursements for the period were substantiated by an inspection of paid checks, purchase invoices and other data on file. Selective tests were made of the income and expense accounts for the period. It was noted that JOURNAL space was contributed for advertising United States Bonds and small classified ads for members and the widows of members.

Income Statement

The financial result of the activities of the Association for the year 1955 was an excess of income over expenses of $7,386.91 as set forth in Exhibit B. Exhibit C presents a summary of committee and meeting expenses for the year.

Balance Sheet

The financial position of the Association at December 31, 1955 is presented in Exhibit A, and additional comments follow on Balance Sheet accounts.

Accounts Receivable—Advertisers, in the amount of $1,705.48, represent current accounts of $1,702.48 which were collected in January 1956 and one unpaid account of $3.00.

Unpaid Dues of $1,862.50, offset by a reserve account in like amount, represent 1955 dues of delinquent members carried at December 31, 1955 at the request of the local societies. Other members, with delinquent dues at the end of the year, were dropped from membership in accordance with the by-laws. Exhibit D presents a summary of unpaid 1955 dues, prepaid 1956 dues and membership by counties, as shown by the records of the Association.

Furniture and Fixtures continue to be stated in the fixed amount of $1,000.00. Purchases and repairs during the year were charged to expense in lieu of depreciation.

Records and data on file were carefully reviewed for liabilities at December 31, 1955 and it is believed that all current liabilities of substantial amount are included in the Balance Sheet. A contingent liability of $900.00 is reported in connection with three malpractice suits pending against members. The Association is required to furnish assistance in an amount not to exceed $300.00 in each case, under the provisions of its by-laws.

Advance payments of $2,897.50 were made by exhibitors for exhibit space for the 1956 annual session and payments will be taken into income when earned in 1956.

General

Insurance policies were inspected and the following insurance was in force at the close of the year:

Insurance on	*Type of Coverage*	*Amount*
Furniture and Fixtures	Fire and Extended Coverage (80 per cent co-ins.)	$3,000.00
Employees	Workmen's Compensation	Statutory
Lessee's Liability	Bodily Injury	$25,000/50,000.00
Treasurer	Fidelity Bond	20,000.00
Executive Secretary	Fidelity Bond	1,000.00
Employees (Executive Secretary, Field Secretary and Business Manager)	Endowment Life Policies with Disability Benefits (Cash Value $14,326.80) 3 policies—coverage each	12,000.00
Automobiles of Executive Secretary and Field Secretary	Non-ownership—Bodily Injury	$50,000/100,000.00
	Property Damage	5,000.00

Subject to the comments thereon, the attached financial statements, in our opinion, present fairly the position of the Missouri State Medical Association at December 31, 1955 and the result of its activities for the year then ended, in accordance with accepted principles of accounting applied on a basis consistent with that of the preceding year.

Yours very truly,
LENNERTSON & COMPANY,
Certified Public Accountants.

EXHIBIT A

Missouri State Medical Association
Balance Sheet, December 31, 1955

Assets

Cash		
Mercantile Trust Company (Treasurer's account)	$33,567.05	
Mercantile-Commerce National Bank (Secretary's account)	283.36	
Petty Cash Fund	25.00	$33,875.41
U. S. Savings Bonds—Series G 2½%—Cost and Par Value (Maturing 1957—$15,000; 1958—$25,000; 1959—$10,000; 1967—$5,000)		55,000.00
Accounts Receivable—Advertisers		1,705.48
Dues Receivable—(Exhibit D)		1,862.50
Furniture and Fixtures (at stated value)		1,000.00
Advances for Travel Expenses		236.12
		$93,679.51

Liabilities

Accounts Payable		
Supplies and Expenses	$ 3,255.45	
Payroll Taxes	713.87	$ 3,969.32
Deferred Credit to Income		
Advance Payments by Exhibitors		2,897.50
Contingent Liability to Members on Three Malpractice Suits—$900.00		
Reserve for Uncollected Dues		1,862.50
Reserve for Future Activities		
Balance January 1, 1955	$77,563.28	
Excess of Income over Expenses for the year 1955 (Exhibit B)	7,386.91	84,950.19
		$93,679.51

EXHIBIT B

Missouri State Medical Association
Income Statement for the Year 1955

Particulars	*General Activities*	JOURNAL *Publication*	*Total*
INCOME			
Dues Received (includes $1.00 per member annually for The JOURNAL	$73,066.00	$ 3,182.00	$ 76,248.00
Rentals—Annual Session Exhibit Space	7,650.00		7,650.00
Subscriptions to The JOURNAL—Non-members		208.70	208.70
Advertising Space—The JOURNAL		33,438.00	33,438.00
Interest on U. S. Savings Bonds	1,312.50		1,312.50
Collection Fees on A.M.A. Dues	684.25		684.25
Total Income	$82,712.75	$36,828.70	$119,541.45
EXPENSES			
Salary—Executive Secretary	$ 7,760.00	$ 3,880.00	$ 11,640.00
Salary—Treasurer	1.00		1.00
Office Salaries	18,391.67	9,195.83	27,587.50

Employee's Retirement Insurance Premium	2,568.12		2,568.12
Office Rent and Light	2,878.78		2,878.78
Postage	2,033.05	736.77	2,769.82
Stationery, Printing and Office Supplies	1,911.32		1,911.32
Directories and Clipping Service	704.94		704.94
The Journal—Paper, Printing, etc.		25,787.10	25,787.10
Cash Discounts to Advertisers		8.88	8.88
Commissions on Journal Advertising		3,190.92	3,190.92
Discount to Exhibitors	15.00		15.00
Telephone and Telegraph	1,723.67		1,723.67
Insurance—General	148.50		148.50
Fees and General Expenses	939.92		939.92
Taxes—Social Security and Personal Property	494.51		494.51
Traveling Expense—Executive Secretary	1,082.86		1,082.86
Traveling Expense—Field Secretary	2,340.36		2,340.36
Traveling Expense—General	71.70		71.70
Committees and Meeting Expenses (Exhibit C)	23,576.46		23,576.46
Equipment Purchases and Repairs in lieu of Depreciation	330.40		330.40
Legal Expense	2,382.78		2,382.78
Total Expenses	$69,355.04	$42,799.50	$112,154.54
Net Income or (Loss) for the Year	$13,357.71	$(5,970.80)	$ 7,386.91

Exhibit C

Missouri State Medical Association
Statement of Committee and Meeting Expenses
For the Year 1955

Annual Session		$ 6,627.88
Council Meetings and Councilors' Expenses		4,041.12
Delegates to A.M.A.		1,788.60
Public Relations		4,277.62
Woman's Auxiliary		1,257.20
Committees:		
American Medical Education Foundation	$ 55.85	
Cardiac Disease	18.30	
Conservation of Eyesight	29.97	
Emergency Medical Service	142.20	
Health and Public Instruction	2,491.71	
Hospital and Professional Relations	231.50	
Industrial Health	27.17	
Infant Care	294.52	
Laboratory Medicine	8.86	
Maternal Welfare	47.78	
Mental Health	95.42	
Physical Medicine	52.16	
Public Policy and Relations	1,725.90	
Rural Medicine	60.04	
Scientific and Postgraduate Work	156.72	
Tuberculosis	50.46	
Veterans' Care	95.48	5,584.04
Total		$23,576.46

Exhibit D

Missouri State Medical Association
Dues Receivable and Membership by Counties
December 31, 1955

Membership

Counties	Total	Junior	Active	Honor	Unpaid Dues	Prepaid Dues
Andrew	6	1	4	1		
Audrain	21	3	16	2		$ 425.00
Barton-Dade	10	1	7	2		162.50
Benton	2			2		
Boone	71	5	60	6	$ 62.50	
Buchanan	90	5	69	16		
Butler-Ripley-Wayne	31	2	28	1		
Callaway	16		9	7	50.00	
Camden	1		1			25.00
Cape Girardeau	44	1	38	5		
Carter-Shannon	2		1	1		(25.00 (12.50 N
Chariton-Macon-Monroe-Randolph	32	1	26	5		550.00
Clay	49	9	39	1		487.50
Clinton	7	1	5	1		
Cole	41	1	38	2		
Cooper	14		13	1	25.00	
Dallas-Hickory-Polk	9		7	2		175.00
Dunklin	24	3	18	3	25.00	
Franklin-Gasconade-Warren	30	4	24	2		
Grand River (Caldwell-Livingston-Carroll-Grundy-Daviess-Harrison-Linn-Mercer-DeKalb)	58	6	43	9		
Greene	134	5	119	10	12.50	
Henry	13	1	11	1		
Holt	4		1	3		
Howard	7	1	6			
Jackson	759	52	604	103	412.50	
Jasper	81	3	63	15	25.00	37.50 N
Jefferson	14		13	1		
Johnson	11	2	8	1		
Lafayette-Ray	29	7	18	4		
Lewis-Clark-Scotland	4		4			
Lincoln-St. Charles	26	5	19	2	37.50	
Marion-Ralls-Shelby	29	1	23	5		
Mid-Missouri (Phelps-Crawford-Dent-Pulaski-Maries-Laclede)	42	4	37	1	50.00	
Miller	3		3			75.00
Mineral Area (St. Francois-Iron-Madison-Washington-Reynolds-Ste. Genevieve)	29	3	22	4		
Moniteau	5	1	4			
Montgomery	4		3	1		75.00
Morgan	5		5			
Nodaway-Atchison-Gentry-Worth	21	2	17	2	25.00	
North Central (Adair-Schuyler-Knox-Sullivan-Putnam)	18		8	10		
Ozarks (Barry-Lawrence-Stone-Christian-Taney-Newton-McDonald)	46	2	39	5	25.00	
Pemiscot	24	5	15	4		175.00
Perry	13	2	9	2		
Pettis	30	3	21	6		
Pike	12	1	7	4	25.00	
Platte	6	1	5			25.00
St. Louis County	374	21	333	20	50.00	137.50 N
St. Louis City	1,280	101	1,066	113	987.50	150.00 N
Saline	24	3	18	3		
Semo (Stoddard-New Madrid-Mississippi-Scott)	40		30	10		
South Central (Howell-Oregon-Texas-Wright-Douglas-Ozark	26	3	18	5	25.00	50.00
Webster	3		2	1		50.00
West Central Missouri Bates-Cass-Cedar-St. Clair-Vernon)	49	4	38	7	25.00	
Totals	3,723	276	3,035	412	$1,862.50 A	$2,637.50

(A) Delinquent dues of members carried at December 31, 1955 at the request of local societies.

(N) New Members—payments received from applicants in 1955 for membership effective January 1, 1956.

Budget for 1956

Salaries	$ 42,180.00
Journal Expense	31,300.00
Postage, Printing and Stationery	5,000.00
Travel, Executive Secretary	1,300.00
Travel, Field Secretary	2,800.00
Telephone and Telegraph	1,800.00
Office Rent and Light	3,200.00
Meetings, Committee Expense	25,800.00
Defense	500.00
Scientific and Postgraduate Work	1,000.00
Woman's Auxiliary	1,200.00
Public Relations	7,500.00
Insurance Annuity	2,700.00
General Expense	2,500.00
Furniture and Fixtures	500.00
Social Security Tax	600.00
Legal Expense	2,200.00
Total	$132,080.00

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Here's what can be used—

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Here's how—

Hamburger takes well to a pinch of thyme, another of marjoram, and a sprinkle of pepper. Chicken's delicious with a squeeze of lemon, a touch of rosemary, and a sweet butter to baste. And broiled steak speaks for itself.

Vegetables are even easier. Your patient may like them livened with vinegar—white wine vinegar with mild flavored vegetables, red with more robust flavors. Broccoli and asparagus are especially good with lemon juice.

If butter is a "must," make it sweet butter with nutmeg or rosemary on string beans. Savory brings out the best in limas, while tarragon teams with carrots, basil with tomatoes. And onions boiled with whole clove and thyme would delight the taste of an epicure!

With these flavor tricks to add zest to his meals—and a glass of beer*, at your discretion, for a morale boost—your patient is more likely to follow his diet. And your treatment will have a chance to show its effectiveness.

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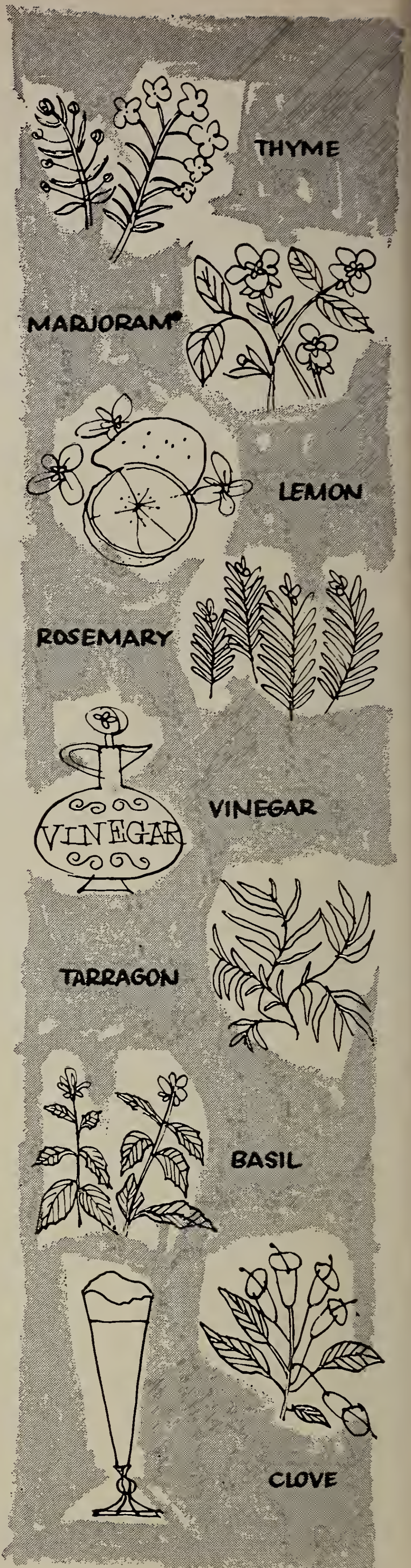

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Curiosa et Trivia

William B. McCunniff, M.D.

The "fame" of grave-robbers, Burke and Hare, is based on the delivery of some sixteen bodies to medical schools. These cadaver contractors, who operated in Edinburgh until their operation came to a sudden halt, realized only about forty dollars per body.

Attendants at the A.M.A. meeting in St. Louis in 1854 heard a paper on the "Use of Cold as an Anaesthetic Agent."

It might sound almost like fault-finding to report that a large and well known medical center (not in Minnesota, you may be sure) has an intake and output sheet recording the amount of "Wagenstein" drainage! Dr. Wangensteen and Massilon may well be proud of the bright eyed nurse who spotted this item.

There is a lot of "it" going around: the frequency of disabling illness in midwinter is almost twice that in midsummer.

During the first few hours of his recent coronary, President Eisenhower was given (in order named) amyl nitrite, Papaverine Hydrochloride, morphine, heparin, followed by a second dose of morphine. He was allowed to walk to the car on his way to the hospital where he was given Seconal and oxygen.

Placebos produce pain relief in about 30 per cent of patients, and are found to have an average significant effect of about 35 per cent. "Toxic" or other subjective side effects are experienced by about 10 per cent of patients.

Still not a bad summary of fluid and electrolyte balance: ". . . I judged that the curative indication was altogether to be directed to the diluting and contemprating the sharp humours that were excreted for the most into the bowells, as likewise to diluting and contemprating the bloud its self the source of this mischeife. . . ." This pre-flame-photometer quotation is from Thomas Sydenham's "A Dysentry," dated about 1670.

The Cleveland, Ohio, telephone directory lists thirty-eight columns of Physicians, (M.D.) and slightly over one column of Physicians, (D.O.).

Capsule Clinics

I. A. Wien, M.D.

- In fractures of the lower limb early weight bearing was not permitted, over 50 per cent of the fractures united in twelve weeks, whereas only 37 per cent united rapidly when weight bearing was allowed. Watson-Jones, R.: Fractures and Joint Injuries, 1, 4th Ed., Williams & Wilkins Co., 1952.

- Avascular necrosis of the head of the humerus is inevitable when all vascular attachments have been torn. Ankylosis in the optimal position of moderate abduction is the best possible result. Watson-Jones, R.: Fractures and Joint Injuries, 1, 4th Ed., Williams & Wilkins Co., 1952.

- Vagotomy alone is not a satisfactory primary surgical procedure for duodenal ulcer when compared with subtotal gastrectomy carried out by a competent surgeon and with a low mortality. Marshall, S. F.: Surg. Clin. N. America (June) 1954.

- Pelvic exenteration, whenever possible, is a more acceptable operation than the so-called palliative colostomy with the tumor left in situ. The operative mortality is about 10 per cent. Rosi, P. A.: Surg. Clin. N. America 34 (February) 1954.

- Bleeding due to diverticulitis can and does occur but it is not a common symptom and before rectal bleeding is attributed to it, one must rule out a polyp or carcinoma of the colon or rectum. Colcock, B. P.: Surg. Clin. N. America (June) 1954.

- Rheumatoid arthritis is characterized by chronic inflammatory changes in the synovial membranes and periarticular structures, by migratory stiffness of joints in early stages and later deformity and ankylosis. Eighty-five per cent of the cases occur between 25 and 50 years of age. Shands, A. R.: Handbook of Orthopedic Surgery, 4th Ed., C. V. Mosby Co., St. Louis, 1952.

Entered as second-class matter, February 18, 1925, at the post office at Fulton, Missouri, under the Act of March 3, 1879. Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917. Publication Office: 1201-5 Bluff Street, Fulton, Missouri. Editorial Office: 634 N. Grand Ave., St. Louis 3, Mo. Subscription Price: $3.00 Per Year. Printed by The Ovid Bell Press, Inc., Fulton, Missouri.

Missouri Medicine in Review

Leo H. Pollock, M.D.

FORTY YEARS AGO

The Reynolds County Medical Society met in regular session in the office of Dr. L. B. Ralls at Centerville, January 21, 1916. The meeting was called to order by the president, Dr. A. F. Bugg. Owing to high waters and an epidemic of grip the society was unable to meet in December, therefore the election of officers was in order.

The ruthless attack upon Dr. George R. Thompson, superintendent of State Hospital for the Insane No. 2, St. Joseph, because he could not be "handled" by politicians and would not discharge employees without cause in order to make room for political workers, will undoubtedly add impetus to the demand that the eleemosynary institutions of the state be removed from political control. We commend Dr. J. A. Postlewait, of Tarkio, the president of the board of managers and Mr. Edward S. Villmoare, of Kansas City, another member of the board, both of whom resigned after a futile protest against the unfair tactics pursued in the trial of Dr. Thompson, for refusing to indorse the board's action. Our congratulations extend also to Drs. R. O. Lieuallen and A. T. Fisher, assistant physicians, who testified eloquently concerning Dr. Thompson's efficiency, and resigned their positions when he was discharged.

Perhaps the most startling development of the meeting of the Association of American Medical Colleges was the proposal of the Chairman of the Council on Medical Education of the American Medical Association to reduce the number of good schools of medicine by uniting two or more schools that now exist independently in many of the largest cities of this country. The association balloted favorably on the application for membership from the medical schools of the Universities of Fordham, Marquette, and South Carolina. The University of Utah was dropped from the list of members. After January 1, 1918, all schools in the association must require a minimum of two years of college work for entrance. It is interesting to note that this standard has been fixed already in all three of the Class A schools in Missouri.

The American Medical Golfing Association held its first tournament in San Francisco, June 21, 1915.

Dr. A. W. Parrish, Kirksville, the Nestor of the medical profession in that vicinity, was a victim of the epidemic of influenza and confined to his home for three weeks. He has fully recovered.

Dr. William L. Rodman, of Philadelphia, president of the American Medical Association, died at his home, 2106 Walnut Street, Wednesday, March 8, of pneumonia. He had been ill but a few days. He was one of the best known surgeons in America and was widely and favorably known abroad. He was a scientist, surgeon, philanthropist, scholar, teacher, gentleman and friend, qualities rarely combined in one man.

The American Urological Association, composed of about 400 members from the United States and Canada, will meet in St. Louis with headquarters at Planters Hotel, April 17, 18 and 19. Dr. Edward L. Keyes, Jr., New York, is president of the association.

Dr. Stephen H. Steele, born October 29, 1830, in Lauderdale County, Tenn., died at Caruthersville, Missouri, February 17, 1916, at the age of 85 years, 3 months and 19 days. He represented Pemiscot County in the legislature in 1874 and in subsequent years was probate judge and presiding judge of the county court of his county. He was one of the pioneer physicians of Southeast Missouri, a man of sterling integrity, keen wit and remarkable prudence.

St. Louis Mullanphy Hospital is planning to erect a new building but the definite location has not been decided upon. Mullanphy Hospital is the oldest hospital west of the Mississippi. It was erected in 1828, the funds being donated by John Mullanphy. The first building was a log cabin. In 1831 this was replaced by a brick building. It is conducted by the Sisters of Charity of St. Vincent de Paul.

TWENTY-FIVE YEARS AGO

The Wright-Douglas County Medical Society had an interesting meeting. The subject, "The most outstanding question before the medical profession today," was discussed. The discussion was opened by Dr. R. A. Ryan, Mountain Grove, and was participated in by most of the members present. It was the consensus of opinion that the most important function of the physician is to relieve the sick and the next most important question and as necessary to it is the problem of making a living.

An unusual gathering and celebration, a variation in class reunions, took place in St. Louis, March 3. This was the banquet meeting of the living members of the class graduated by the St. Louis Medical College in 1881. The occasion was

(Continued on page 324)

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References: 1. Bunim, J. J., et al.: J.A.M.A. 157:311, 1955. 2. Forsham, P. H., et al.: Paper presented at First Internat. Conf. on Prednisone and Prednisolone, New York, May 31-June 1, 1955. 3. Perlman, P. L., and Tolksdorf, S.: Scientific Exhibit presented at A.M.A. Annual Meet., Atlantic City, June 6-11, 1955.

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*brand of prednisolone

Missouri Academy of General Practice

J. H. Trolinger, M.D.

American Academy of General Practice

In keeping with the steady growth of the American Academy of General Practice, the Missouri Chapter continues to manifest a wholesome increase in its membership. This growth remains consonant with the primary objectives of both the state and national organizations: "Quality before quantity." In other words, we are soliciting and enrolling only those physicians who seem most likely to maintain a lively interest in the welfare of our profession generally, while making every reasonable effort through postgraduate education and private study to continually improve professional integrity and competence.

We are happy to congratulate the following Missouri physicians recently approved for membership in the MAGP: Drs. Francis W. Cooke, Caruthersville; O. H. Damron, Warrensburg; John J. de la Torre, Sullivan; Richard B. Fulks, California; Charles A. Lichty, Jackson; James F. Fairchild, Perryville; Gordon M. Nunnelly, Cape Girardeau; Randal N. Ochs, Wheaton; Samuel Res McCracken, Excelsior Springs; Roy Earl Mitchell, Salem; Joe Woodward Ward, Lexington; Robert B. Best, Higginsville; Stanley G. Legner, Perryville; John B. Withrow, North Kansas City; Paul T. Luckenbill, Plattsburg; John P. Mabrey, Plattsburg; Eustace E. King, St. Louis; John M. Collins, St. Louis; Harold Lankford, Mexico; Gerald M. Hoxworth, Cape Girardeau.

Our education committee under the able leadership of Dr. William J. Shaw is off to a flying (and already, fruitful) start. Plans are now practically completed for our annual assembly to be held in Jefferson City, October 24 and 25. Among the outstanding speakers already committed to participate are: J. S. DeTar, M.D., our national president whose brilliant speaking and unflagging energy have already achieved so much while serving as president-elect; Robert Myers, M.D., first president of the Missouri Academy of General Practice; William D. Stroud, M.D., Professor of Cardiology at the Graduate School of Cardiology, University of Pennsylvania; Joseph E. Flynn, M.D., Professor of Pathology, University of Missouri; Gwilym S. Lodwick, M.D., at present Professor of Radiology, State University of Iowa; Mr. Mac Cahal, Executive Secretary of the American Academy of General Practice.

In addition to the primary business of their first meeting, working out the program for our annual assembly, the education committee is making tangible progress toward realization of those heretofore nebulous goals of establishing a Department of General Practice in our medical schools and of achieving a preceptorship program worthy of comparison with those of Wisconsin and Kansas. Your suggestions as to how to make Missouri's the best will be greatly appreciated.

The Missouri Academy of General Practice is particularly fortunate in being able to count among its membership the distinguished dean of the University of Missouri School of Medicine, Dr. Roscoe L. Pullen. To set the record straight, it must be emphasized that Dean Pullen's is no mere honorary or titular membership. He is an active, working and attending member of the education committee, among others. I find it almost incredible that so eminent an author, educator and administrator should find the time and enthusiasm to lavish upon our organization—particularly just now, while in the throes of building and organizing Missouri's new four-year medical school. We're downright grateful, Dr. Pullen.

In addition to ably discharging the routine and multifarious duties of their respective offices, our president and president-elect have gotten in some good innings more or less extracurricularly. On January 10, 1956, our president, Dr. Thomas L. Dwyer, addressed the University of Missouri Chapter of the Student American Medical Association defining for them the modern conception of the General Practitioner, outlining a course of training (including preceptorship, internship and residency) considered most likely to achieve the best possible preparation for the general practice of medicine. Dr. Dwyer also gave a brief history of the American Academy of General Practice and the Missouri Academy of General Practice, their objectives and their achievements to date. It would seem safe to assume that here, at least, is one group of students whose medical perspective has been sufficiently broadened to appreciate the dignity, discipline and devotion of the modern, well trained and competent generalist. Perhaps it is not too much to hope that Dr. Dwyer enlightened a few of these neophytes to the point of realizing that it is only through these generalists that the overwhelming majority of the American people can realize the benefits of modern medicine.

On December 14, 1955, our president-elect, Dr. Charles E. Martin, served as a member of a panel discussing hospital-physician relations before the Missouri Hospital Association's annual meeting. So capably and fairly did he conduct himself and champion our principles that Dr. Martin was unanimously and formally commended by the board of directors at their meeting in Jefferson City on February 12, 1955.

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Smith, Kline & French Laboratories, Philadelphia

1. Howell, T.H., et al.: Practitioner *173*:172 (Aug.) 1954.

*T.M. Reg. U.S. Pat. Off. for chlorpromazine, S.K.F.

Woman's Auxiliary

MRS. FRANK B. LEITZ, *President*

This article is twelfth in a series written, as a pleasant monthly duty, by the president of the Woman's Auxiliary to the Missouri State Medical Society for publication in MISSOURI MEDICINE.

We, as Auxiliary members, appreciate much the favorable recognition of our organizational efforts implied when you permit us the use of precious, costly space in your monthly publication.

At present our thoughts and efforts are directed toward April 8, 9, and 10 when the thirty-first annual meeting of the Woman's Auxiliary will be held at the Hotel Statler, St. Louis.

Eighteen members of the Woman's Auxiliary to the St. Louis Medical Society comprise the hostess convention committee. With Mrs. Harold H. Feller as chairman, this committee has done thoughtful planning toward our pleasure, entertainment and comfort.

At 7:00 p.m. on Sunday, April 8, there will be a buffet supper and entertainment in the Hotel Statler Ballroom. All doctors and their wives are invited and urged to attend.

Monday's luncheon will honor Mrs. Mason G. Lawson, president of the Woman's Auxiliary to the American Medical Association, and our own past presidents. Mrs. Lawson will speak on her year's theme, "Active Leadership in Community Health."

Tuesday's luncheon will honor Victor B. Buhler, M.D., Carl F. Vohs, M.D., and the members of our auxiliary Medical Advisory Council, Donald M. Dowell, M.D., Raymond O. Muether, M.D., and Richard H. Kiene, M.D. Dr. Buhler will speak on the subject of his choice, "What's Ahead?"

Executive board meeting is scheduled for 2:30 p.m. Sunday, April 8.

Executive board members, county auxiliary presidents-elect, and county auxiliary delegates are urged to attend general business sessions at 9:30 a.m. Monday and Tuesday.

Wives of doctors who are attending meetings of the Missouri State Medical Association, even though they are not members of the Auxiliary, are cordially invited to attend our business sessions and social functions.

The Tuesday evening annual banquet for the Missouri State Medical Association, Gold Room, Hotel Sheraton-Jefferson, is traditionally gay and interesting. Dr. Elmer Ellis, President, University of Missouri, will be the speaker.

Our one, only and favorite son, referred to in earlier articles, writes from twenty miles north of Seoul, Korea, regarding his recent trip on a troopship crossing the Pacific ocean. He mentions being choked with emotion as the ship was pulled from a west coast dock and his homeland shoreline receded. He philosophically uses the expression "c'est la guerre."

His description might well be applied to my present state of emotion. As this article is being pulled from the reticent recesses of a weary brain I, too, experience a choking sensation. After all, it is an honor to be included in the list of your illustrious contributors. That honor will not longer be mine. With another hard swallow, I ponder whether I've made best possible use of your generosity in making space available to the Auxiliary. But, this is life. My year has come and gone.

I wish for my successor, Mrs. Charles T. Shepherd, the graciousness you have extended to me as one of your contributors. I am proud to join our past presidents, thirty-one worthy, devoted women who have served as president of the Woman's Auxiliary to the Missouri State Medical Association.

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*Clinton, M., Round Table Discussion: New York J. Med. 54:181, 1954.
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Progress of the Prepayment Plans

Missouri Medical Service Elects New Officers

Carl F. Vohs, M.D., St. Louis, President-elect of the Missouri State Medical Association, was reelected president of the St. Louis Blue Shield medical-surgical care plan at the annual meeting of the organization held on February 26. St. Louis Blue Shield, the nonprofit community service plan sponsored by the Missouri State Medical Association, now protects more than 418,000 members throughout its territory.

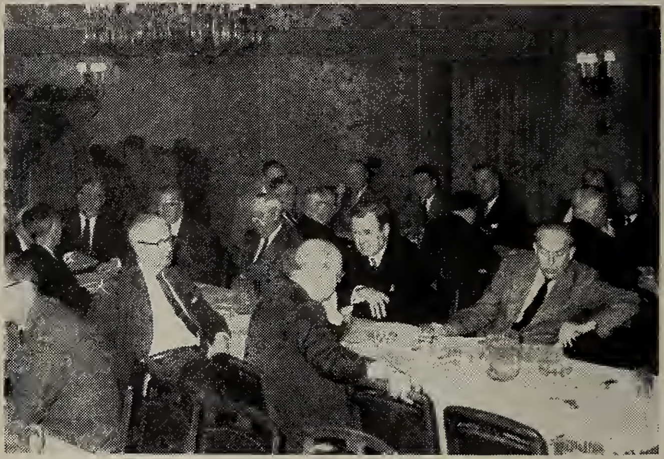
Officers elected at the annual meeting on February 26 are State Senator John W. Noble, Kennett, second vice president; J. W. Thompson, M.D., St. Louis, secretary; Mr. R. J. Connors, St. Louis, treasurer, and Carl F. Vohs, M.D., St. Louis, president.

Seven of the twenty-four newly elected members of the board of trustees and voting board who were present at the annual meeting are, seated, from left, Jerome Simon, M.D., Mr. Bert Horning, Francis X. Paletta, M.D., all of St. Louis. Standing, from left, T. H. Hanser, M.D., Leo J. Hartnett, M.D., Mr. Mark R. Holloran, all of St. Louis, and J. Loren Washburn, M.D., Versailles.

R. O. Muether, M.D., St. Louis, was elected first vice president, and State Senator John W. Noble, Kennett, second vice president. J. W. Thompson, M.D., St. Louis, was named secretary, and R. J. Connors of the W. C. McBride Company, also of St. Louis, was reelected treasurer.

Eight new members were elected to the board of trustees: Mark R. Holloran, president of the P. J. Holloran Company; B. B. Watkins, attorney, and the following physicians—Drs. Leo J. Hartnett, T. E. Sanders, Jerome I. Simon and B. L. Sinner, all of St. Louis, J. L. Washburn, Versailles, and Ben M. Bull, Ironton.

Those newly elected to the voting board were: Ray R. Dolan, Sr., Dolan Realty Co.; Bert Horning, Stifel, Nicolaus and Co.; Jerome A. Switzer, Switzer Candy Co.; J. E. Williams, Jr., Williams Construction Co., all of St. Louis; R. Jasper Smith, Springfield, attorney, and the following physicians, Drs. Eugene M. Bricker, John P. Eberle, Paul O. Hagemann, Ted Hanser, Charles E. Martin, Thomas M. Martin, James P. Murphy, Francis X. Paletta, and A. C. Stutsman, all of St. Louis; B. E. DeTar, Joplin, and James M. Baker, Columbia.



Reports were presented and discussed at the meeting.

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[1] Bollet, A. J., Black, R., and Bunim, J. J.: *J.A.M.A.* **158**: 459, June 11, 1955.

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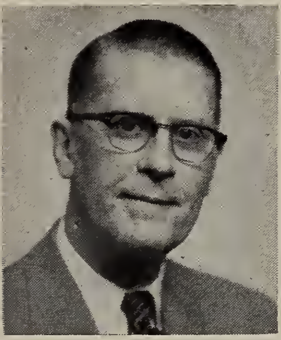
Missouri State Board of Medical Examiners

Duff S. Allen, M.D., *President*

The Annual National Congress



The 52nd Annual Congress on Medical Education and Licensure was held in Chicago February 11 to 14, 1956. This is the inclusive meeting of the year at which are assembled several hundred medical educators such as the Deans of medical schools, representatives or, in certain instances, whole State Boards from each state, representatives of the Advisory Board for Medical Specialties, the Council on Medical Education and Hospitals of the American Medical Education and the National Board of Medical Examiners. It is at once apparent that this is the one most important meeting for all of these groups.

Several papers were read at this Convention which should be of interest to all physicians whether in private practice or teachers in a medical school. The address of the President of the Federation of State Medical Boards was on "Reciprocity and Interstate Endorsement." Other papers presented were: "Essentials of a Modern Medical Practice Act," "The Future of the Hospital Internship as Related to Medical Licensure," "Progress Report on Foreign Medical Graduate Program," "Problems Related to Clinical Faculty Appointments and the Private Practice of Medicine." Five aspects of this latter question were presented. The first was a Summary of Responses to Medical School Questionnaires, the second a Summary of Responses to Medical Society Questionnaires, the third a Summary of Legal Opinion, the fourth an Interpretation of the Problem as It Concerns Medical School Administration, and the fifth an Interpretation of the Problem as It Concerns the Medical Profession.

Other papers were presented on "A Search for Better Ways—A Critical Look at Medical Education," "Filling the Gap Between Medicine and Practice," "A Clinician and State Licensing Board Member Looks at Medical Education" (by Dr. Elmer Hess, President, American Medical Association), "Relation of Medical Education to Licensure," "Medical Licensure after Forty Years," and "Foreign Medical Graduate Problem—The Future Outlook."

We hope to discuss certain of these important subjects with you in this and future issues of Missouri Medicine. These problems should be of interest to all because they are likely to affect the future of medicine in our state as well as the entire United States.

The paper on "The Essentials of a Modern Medical Practice Act" seems to me to be one of the most far reaching of all of those presented. At the 1953 Federation Meeting a committee was appointed to study all of the Medical Practice Acts of all states. From this study they were to come up with a master plan to serve as a guide to those states and territories which might be contemplating the adoption of a new Medical Practice Act or might be willing to amend their existing laws. If the various states could come to a standardization of requirements and regulations, it would assure the people of all states that no one would be licensed to practice medicine except those who were highly qualified. At the same time, it would go a long way toward solving the trying problem of reciprocity between the states.

Reciprocity between the states may be a vexing thing for the doctor who wants to move from one state into another. More often than not the real difficulty between the states lies in the differences in the type of examination given or in the type of state board giving the examinations. Let me quote from the mimeographed report given out by this committee at the 1956 Convention:

"From ancient times, heads of governments and legislative authorities granted to the professions and trades the right to license and regulate their own members. In more modern times, partly due to abuse and partly due to inaction on the part of the professions and trades, this privilege has frequently been removed by legislative authority. In many states and territories the authority is vested in nonprofessional political appointees with professional persons serving without authority and only as advisory. There is a trend to 'streamline' government with the result that licensing boards and agencies are abolished with responsibilities placed in large, multi-purpose political departments of government with all authority vested from without the profession." This does not apply to the State Board of Missouri.

The Committee recommended seven minimum requirements for those who are to be permitted to take the examination. They are: that an applicant must be 21 years of age, of good character, a citizen of the United States, a graduate from a four year approved medical school, that he should have completed a one year internship in an approved hospital, and that he make a personal appearance before the licensing board. We are pleased to tell you that your State Board con-

(Continued on page 340)

Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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Vol. 53 **April, 1956** **Number 4**

Intra-Epithelial Carcinoma of the Cervix Uteri

ALFRED I. SHERMAN, M.D., and PERCY V. GLADDY, M.D., *St. Louis*

Acceptance of intra-epithelial carcinoma of the cervix as a distinct clinical entity represents a great stride forward in advancing present day cancer control. Though recognized and described by Schiller[1] and others may years ago, its true potential of malignancy remained unproven and it was held as an interesting medical curiosity until recent years. The entity is commonly accepted under the synonyms "carcinoma-in-situ" and "preinvasive carcinoma" of the cervix uteri.

To discuss this lesion without confusion, it must be exactly defined and for this we should like to accept Dr. Emil Novak's concise description viz " 'Carcinoma-in-situ' is a lesion in which the entire thickness of the squamous epithelium is replaced by cells which morphologically are indistinguishable from the cells of genuine invasive cancer, with complete loss of the normal stratification but with no demonstrable evidence of invasive penetration of the basement membrane." From this definition, two important features must be emphasized: first, since cancer is generally accepted as malignant and implies invasiveness, whereas, by definition this lesion is not it becomes delegated as benign clinically; second, it is not a clinical diagnosis, rather a histologic one.

The question as to whether or not this lesion is benign has prompted a long and stormy debate. Intensive study of this lesion in many countries followed Schiller's demonstration of its invasive potentialities. The question of benignity is of obvious significance, for, if the lesion is so considered and accepted it will allow an opportunity to treat an incipient malignancy while it is yet in a clinically benign state. For many reasons, which will be discussed later, this question remains unanswered to universal satisfaction despite intensive exploration of the problem. Nonetheless, there exists sufficient proof to demonstrate a definite relationship between intra-epithelial carcinoma and frankly invasive cancer.

One of the many reasons for the confusion surrounding the clinical features of this lesion has been the difficulty in microscopic diagnosis, or rather its misdiagnosis. For some time difference of opinion gaped widely, not only among various pathologists but also among competent gynecologists well oriented to histologic pathology. Its novelty, intriguing speculativeness and the lack of sufficient clinical experience with the lesion were responsible for the inclusion of other lesions showing bizarre hyperplasia and metaplasia. Fortunately, the gap of differences has been markedly narrowed so that the given definition of the lesion finds nearly unanimous acceptance. To be sure, the definition of the lesion may be acceptable to all but, in the diagnosis of any given lesion, differences of opinion still occur. It may be stated unequivocally that there are still many biopsy slides that will draw a difference of opinion from any group of competent pathologists.

Three other microscopic features continue to plague the clinician in his approach to this problem. First, there is the question as to what constitutes the very earliest evidence of invasion. Intra-epithelial carcinoma has an unfortunate habit of not confining itself to the squamous epithelium proper, but also may encroach upon the glandular structures. This, of course, led many to believe these lesions to be invasive. However, now even this feature has been clarified and it generally held that only demonstrable stromal invasion is acceptable as invasiveness. The question as to what constitutes the earliest phase of invasion in any one section where this type of epithelium dips deeply and seems "nipped off" by the cut of the section, or where haziness of the basement membrane implies "break-through" still leads to much divergence of opinion. The third plague deals with the

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uncertainties presented by the addition of pregnancy to the lesion. There are those who feel that cervical changes associated with pregnancy may simulate carcinoma-in-situ perfectly, only to disappear when the pregnant state has been terminated. There are other competent observers who feel that they can separate the coincidental cervical changes of pregnancy from those changes destined to remain subsequent to parturition as intra-epithelial cancer. It would be wrong to subscribe to the thought that these instances represent diagnostic errors or lack of good judgment. On the contrary, it is believed that the microscope becomes a rather crude and limited diagnostic tool when it comes to separating individual cells in their completely normal wide range of appearance from those on their wayward way to malignancy.

It is only reasonable to ask what factors are present which relate the lesion to invasive cancer. First, it has all the ear-marks of cancer by appearance. Second, it is often associated with invasive cancer, characteristically being present at the peripheral margins of the invasive malignancy. (This feature has other clinical characteristics important in the practical management of such lesions, as will be discussed later.) Does the presence of intra-epithelial cancer at the advancing edge of invasive carcinoma depict a *modus operandi* for the spread of cancer along the superficial plane with eventual break-through into the stroma? Or, does this represent the actual site of origin of the invasive lesion proper? Third, in the study of patients with invasive carcinoma of the cervix, review of cervical biopsies taken months or even years previously will show, in some instances at least, lesions compatible with intra-epithelial carcinoma. In addition, the literature presents well documented cases in which continued follow-up of patients in whom initial cervical biopsies revealed intra-epithelial carcinoma has revealed eventually frankly invasive carcinoma. Example of these two latter types have been observed in our own clinics and hospitals; careful search would undoubtedly reveal similar instances in other institutions. Our own such experiences, and those of others recorded in the literature, are impressive and cannot help but convince us of a true relationship between intra-epithelial carcinoma and invasive cancer. By this, however, there is no implication that this sequence of events is always constant, for there are reports which seemingly prove instances of complete spontaneous regression of the non-invasive lesion. Some of these, no doubt, fall in the group of bizarre cervical changes associated with pregnancy while others represent lesions which, though initially diagnosed as intra-epithelial carcinoma, actually represent histologic abnormalities simulating but not related to carcinoma as also described previously.

TABLE 1

Diagnoses of carcinoma-in-situ on first biopsy	147
Associated with uteri removed for other reasons	9
Unconfirmed on second biopsy	6
No repeat biopsy and lost to follow-up	2
Total	17
Cases for detailed study	130
I. Invasive carcinoma on second biopsy (soon)	36
II. Cases untreated	18
Lost to follow-up	5
Developed invasive cancer	3
2-3 years later	
1-2 years later	
Persistent in-situ	0
Apparently free of disease	10
III. Definitive treatment	76
Cervical amputation	9
1 invasive carcinoma 6 years later	
Excision of cervical stump	2
Irradiation	19
Complete hysterectomy without vaginal cuff	7
1 invasive carcinoma 6 months later	
Complete hysterectomy with wide vaginal cuff	27
Complete hysterectomy and colpectomy	1
Wertheim hysterectomy and lymph node dissection	11
Total	130

Another interesting feature of the lesion is the time delay between the diagnosis of the lesion and the actual development of invasive malignancy as noted previously, and the average age difference of patients in each group. Although the time interval actually embraces a wider range of time, curiously enough the average age of patients with invasive carcinoma is about age 45 which is about one decade older than the average age of patients with diagnosed intra-epithelial carcinoma, viz., age 35, each average age representing findings at several different medical centers.

TABLE 2

AGE INCIDENCE OF INTRA-EPITHELIAL CARCINOMA OF THE CERVIX UTERI

Age Groups	*19-25*	*26-30*	*31-35*	*36-40*	*41-45*	*46-50*	*51-55*	*56-60*	*61-65*	*66-70*
Number of Cases	12	20	25	24	20	13	10	11	8	4

Similarly, on circumstantial evidence the incidence of each lesion in the general population is interesting. The average incidence of both as reported by several gynecologic clinics is of the order of 1.5 to 2.0 per cent. Perhaps, at the danger of over simplifying the situation it might be stated that the same small group of women showing intra-epithelial carcinoma represents the same small group who a decade later are destined to develop invasive carcinoma.

It may, at first glance, seem a simple matter that an answer to this major question be established by allowing these patients to be followed under close surveillance without active treatment. Only by this policy in many instances can a decision be made as to the presence of intra-epithelial carcinoma and its subsequent clinical course. Without detailing the specific reasons, it must here be clearly emphasized that under no conditions may a diagnosis of the lesion by exfoliative cytology be considered acceptable. Not disregarding the value of the procedure as a screening method in the diagnosis of both invasive and intra-epithelial carcinoma, nonetheless, the only acceptable diagnosis must be established by biopsy. Yet, because of the real possibility of missing invasive carcinoma at the periphery of the conventional "punch biopsy," a "ring biopsy" or a "cold knife conization" with subsequent meticulous study of tissue excised becomes mandatory before it can be unequivocally stated that invasion is not present. And so, it becomes a definite possibility that in establishing the diagnosis conclusively an adequate therapeutic procedure may have been carried out. Little doubt remains on either a theoretical basis or from our own clinical results, or those of others, that such procedures have "cured" some patients not only with intra-epithelial carcinoma but also with early invasive lesions. Therefore, follow-up studies will be criticized in assessing the natural history of the lesion for to follow cases without conization may miss the early invasive cases and lead to false conclusions as, also, will the follow-up cases after conization which may effect a cure. This situation combined with the shortcomings in microscopic diagnosis leads to the belief that final definition of the problem lies in the hope of finding another means for diagnosis of the lesion, which may include micro-chemical or vital staining technics or *in vitro* study of the cells in question.

Weighing all evidence presently available, it may be safe to state that at least some intra-epithelial lesions will terminate in frankly invasive lesions, percentagewise no fixed estimation can be given and, more important, the prediction of the final outcome of any given lesion is presently impossible. The implication that these lesions are truly precancerous behooves the clinician to seek them out diligently and has led to new concepts of cancer prevention.

The symptomatology of this lesion is more meager than that of invasive carcinoma, the most frequent presenting symptom being contact bleeding which, however, is infrequent and by no means constant or specific. Gross inspection of the cervix proves unrewarding in warning of not only this lesion but in many instances of invasive carcinoma also, for frequently the cervix presents a "normal" appearance. The accepted conservative management of "benign appearing erosions and polyps" without histologic evidence is now recognized as creating a false sense of therapeutic security. This is demonstrated by the wide acceptance of exfoliative cytology technics, the limitations of which are forgotten. The silent and inconspicuous nature of this lesion suggests its potential presence in a wide segment of the female population. The use of routine biopsy becomes impractical in dealing with such large numbers. It was hoped that the ease and accuracy of cytologic technics would allow practical screening of the general population with selection of a smaller "suspicious" group which would warrant a more detailed diagnostic work-up.

Attempts to establish cancer detection centers have proven impractical because of the expense involved and the small segment of the population reached. Relatively only a small group of interested patients came under study, individuals who frequently had been examined with the same goal in mind by their private physicians. These shortcomings in mind make it more feasible and practical to make each physician's office or clinic a cancer detection unit, and to place more of the onus of "cancer-consciousness" upon each and every physician. Accordingly, to each physician concerned a simple yet effective program for the detection of early cervical malignancy would include:

1. The routine use of cytologic screening for all new obstetric and gynecologic patients.
2. Repeat cytologic screening at yearly intervals on all "negative" patients.
3. Vaginal examination, including visualization and inspection of the cervix as a routine part of each physical examination.
4. Biopsy, including endocervical scraping of all suspicious and positive cases found by cytologic screening.
5. Biopsy of every cervical lesion without reference to its suspiciousness. Such a policy would not be fool proof but would avoid a hit-or-miss attack on the problem and could not avoid missing by far the majority of early cervical malignancies.

Treatment of this disease will, of course, depend upon one's convictions as to its potentially invasive character, and cannot help but be influenced by one's past experience. Regardless of this, there is one mandatory procedure which is a must for each and every case. It would be unwise to accept the diagnosis of intra-epithelial carcinoma on the basis of a single biopsy report. Accordingly, whenever such a diagnosis is made on conventional "punch biopsy," an invasive lesion must be ruled out by ring biopsy, multiple punch biopsies and endocervical curettement, or knife conization. To avoid distortion of the specimen which would interfere with adequate histologic examination, removal by cauterization technics is to be discouraged. Following this further assessment, no fault can be found with expectant observation of these patients, rather than employing further treatment providing that the following criteria are satisfied: (1) no invasion in tissues removed by conization; (2) histologic demonstration of excision beyond the edge of the lesion; (3) established rapport with the patient, emphasizing the importance of frequent follow-up examinations.

Because it is our belief that the individual with intra-epithelial carcinoma is likely to develop invasive cervical carcinoma, we feel that more definitive treatment of the lesion is indicated and, too, that specific clinical features in each case dictate some individualization of treatment. From our own limited experience and that of others it is impossible to give accurate evaluation in terms of five year survivals from any particular method of treatment. Recurrences have been noted following cervical conization, cervical amputation and even total hysterectomy. The best results have followed either irradiation or the more radical type of hysterectomy, advocated and described by Te Linde.[2] Hence, even though the risk of recurrence following conservative treatment is minimal, on occasion more vigorous treatment would have prevented jeopardizing the patient's life.

Limited, but carefully planned, irradiation to deliver a cancerocidal dose to the entire uterus and upper vagina is considered both adequate and safe for both poor operative risk patients or for patients approaching or beyond the menopause. Because of the frequent occurrence of the lesion in the younger age group, preservation of ovarian function in this group is of considerable importance and, to avoid radiation castration, surgery is the procedure of choice. To date we have not encountered recurrence in any patient in whom the ovaries were conserved during the extended total hysterectomy with excision of a wide vaginal cuff. This procedure has become our surgical method of choice.

In but one situation is there justification in modifying this therapeutic approach, viz., in young patients desirous of future child bearing. If, as in case 1, following conization no invasion is evident in a patient who is desirous of pregnancy, careful follow-up observation during a pregnancy is permissible. In such instances, justification is found by virtue of the unusually long "latent period" which may occur before this lesion may demonstrate evident invasion. For any given case this interval is unknown but is reported as being about ten years on the average. Individual cases have been reported in which the interval ranged up to fifteen years. Case 2 illustrates the rapidity with which such a lesion may progress. Case 3 illustrates the possible danger in allowing pregnancy to occur in such a patient and the careful follow-up necessary to avoid catastrophe.

In this group of patients followed without definitive treatment, cytologic and biopsy assessment at frequent intervals is compulsory as is ring or multiple punch biopsy to rule out invasion. The latter procedures have had no particular complications in the pregnant state. If the lesion remains noninvasive, pregnancy is allowed to continue. In either, the case of patients with lesions encountered during pregnancy or in patients allowed to become pregnant after the diagnosis is established the mode of delivery will depend on future considerations. If future pregnancies are considered important, vaginal delivery is effected followed by close observation of the lesion; if future pregnancies are not planned cesarean hysterectomy or irradiation post-partum may be carried out.

This approach or philosophy of therapy may be considered by many as radical. However, it is felt that procrastination by long follow-up of patients with proven intra-epithelial carcinoma has only limited value. Such a therapeutic approach would only serve to demonstrate the eventual percentage incidence of invasive cancer subsequent to conization for this lesion. A deterrent in continuing such a program has been the several unfortunate cases mentioned. Further, frank discussions with patients faced with an honest and conservative opinion as to their situation will reveal considerable unwillingness to face frightful uncertainty for so many years. All these considerations have influenced us to adopt a policy frequently expressed with regard to the similar uncertainties of carcinoma of the corpus, and which has been credited to Dr. Josef Halban, which possibly should be modified to read, perhaps, "nicht Karzinom, aber besser heraus."

In order to best demonstrate some of the problems encountered in dealing with carcinoma-in-situ, five case histories are presented briefly from our records.

Case 1. T. S., aged 30 years, nulliparous, was asymptomatic but on a routine sterility work-up a biopsy of the cervix revealed carcinoma-in-situ. Because of a recent second marriage and a great desire to become pregnant, she was observed without further treatment. She promptly became pregnant, but miscarried at six and a half months. Vaginal smears have remained negative. She is attempting again to become pregnant.

Case 2. L. D., aged 32 years, gravida 3, para 3, had a biopsy of a benign appearing erosion of the cervix because of intermenstrual spotting which revealed carcinoma-in-situ. Repeat multiple punch biopsies were diagnosed as carcinoma-in-situ. Because of the questionable nature of the lesion and the fact that this patient was bedridden by multiple sclerosis, it was decided to follow her by observation only. Unfortunately the patient failed to return for two and a half years at which time she was found to have a League of Nations Stage III carcinoma of the cervix.

Case 3. E. P., aged 26 years, gravida 6, para 3, abortus 2, had a biopsy of an erosion site on the posterior lip of the cervix at post-partum examination which was diagnosed as carcinoma-in-situ. Because of the recent pregnancy, a conization was performed one month later. The diagnosis was questionable. It was elected to observe her. She promptly again became pregnant but aborted at three months. No biopsies were taken. When seen again at four months of her next pregnancy an obvious lesion on the posterior lip of the cervix was noted which showed invasive carcinoma. Treatment was instituted with radium and radioactive gold.

Case 4. J. J., aged 24 years, gravida 1, para 1, was seen because of post-coital spotting and a cervical erosion was biopsied and diagnosed as carcinoma-in-situ. Ring biopsy of the cervix showed the same lesion. A simple hysterectomy was performed and showed no invasion on histologic study. At seven months follow-up examination a definite ulcer was present at the vaginal cuff which on biopsy revealed invasive cancer. Three weeks later on admission to the hospital, a hard tumor mass was palpable at the vault of the vagina. Treatment was then instituted with radium and radioactive gold.

Case 5. C. F., aged 36 years, gravida 3, para 3, had a biopsy of the cervix because of "a bad looking cervix" which was reported as chronic cervicitis, atypical basal cell hyperplasia and questionable carcinoma-in-situ. A wide conization, virtually an amputation of the cervix, was performed. Follow-up revealed good healing. No changes were noted until six years later when the patient developed intermenstrual bleeding and returned to the clinic. Biopsy revealed frank invasive squamous cell carcinoma. Treatment with x-ray and radium was instituted.

Our own experience with carcinoma-in-situ is based upon a study of the records both at Barnard Free Skin and Cancer Hospital and Barnes Hospital during the years of 1936 to 1955. The bulk of the cases diagnosed as carcinoma-in-situ are confined to a relatively recent period. Explanation for this is based on the fact that not only was the diagnosis not entertained but also on the fact that biopsies of relatively benign appearing cervices were not taken as often. A total of 147 cases are found which fulfill all criteria for the diagnosis of intra-epithelial carcinoma.

Of these cases nine were found inadvertently in surgical specimens removed for other reasons. The remaining cases were subject to further study and follow-up, having either repeated biopsies, multiple punch biopsies and endocervical scraping or conizations and ring biopsies. In six cases the diagnosis could not be confirmed by any other means. In two additional cases the patients refused further study and again the diagnosis could not be confirmed.

There are, therefore, 130 cases in whom a diagnosis of carcinoma-in-situ was made and either confirmed or shown to be invasive on further study. Either on repeated biopsy or conization, in a total of thirty-six of the cases listed, invasive carcinoma could be demonstrated and these cases were treated as invasive carcinoma. The others only showed persistent intra-epithelial changes. Of these ninety-four cases, sixty-six or 70.2 per cent demonstrated cervical glandular involvement but without stromal invasion.

No further treatment was given to eighteen of these cases for various reasons but mainly for the sake of future childbearing. Five were lost to follow-up. In five patients, there have been six pregnancies; two carried through to term; one miscarried at six and a half months; one aborted at three months, but subsequently again became pregnant and developed invasive carcinoma of the cervix at four months of pregnancy; one is now currently pregnant. Subsequent invasive carcinoma developed in another two of the patients, both during the third year of follow-up. The remaining six cases continue to be followed and have shown no progression of the lesion. More definitive treatment was performed in seventy-six cases.

Subsequent invasive cancer developed in two of these patients; one six months after simple hysterectomy and the other six years after a wide conization of the cervix. In eleven of the forty-six cases subject to hysterectomy after diagnostic conization histologic study revealed persistent in-situ-carcinoma. Three cases demonstrated stromal invasion.

A Wertheim hysterectomy with lymph node dissection was performed in eleven cases. None of these nodes revealed metastases.

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Operative Cholangiography

Survey of 83 Cases in 232 Cholecystectomies

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OPERATIVE CHOLANGIOGRAPHY is the visualization of the biliary structures obtained by injecting an opaque media directly into the main biliary ducts during the course of an operation upon the biliary ducts, gallbladder, pancreas or duodenum. The operative cholangiography is called primary when it is performed before any attempt is made to explore the common duct, and is called control cholangiogram when the opaque media is injected through a T-tube after the exploration of the common duct.

The value of the operative cholangiogram is greatest when biliary surgery is being performed. The data given to the surgeon is highly valuable and we have been able to prove that the incidence of unnecessary explorations of the common duct or duodenotomy is definitely lowered. The operative cholangiography makes the exploration of the biliary ducts more complete and easier. Any pathologic condition or anomaly of the common duct and superior biliary ducts are more promptly discovered and the risk of leaving stones behind after the exploration of the common duct is less. Of course, this way of exploration of the biliary structures is not 100 per cent infallible. There is always the possibility of obtaining false positive and false negative cholangiograms. According to Pribram, 16 per cent of stones in the common duct are not revealed by the palpation of this structure no matter how carefully the palpation is performed and, since surgery is the only sure way to remove stones from the common duct, the exploration of this structure has to be done as completely as possible.

For the last two years we have been performing the operative cholangiography as a routine procedure in any operation upon the biliary structures, and in only a few cases could the procedure not be done for reasons of severe inflammation of the biliary structures.

INDICATIONS OF OPERATIVE CHOLANGIOGRAPHY

Since the principle purpose of this test is to demonstrate any pathologic condition of the biliary structures, this procedure should be used more often in any operation upon these structures. It is our tendency to use it as a routine in biliary surgery, and any surgeon who performs biliary surgery or pancreatic surgery should be familiarized with the technic of operative cholangiography, and the interpretation of the films, in order to know if any pathologic condition of the biliary ducts is present. If the operative cholangiography is not used as a routine procedure in biliary surgery, its indications can be summarized as follows:

1. Palpable stones of the common duct and superior biliary ducts.
2. In presence of dilated common duct.
3. Presence of biliary sand or small stones in the gallbladder.
4. History of jaundice or presence of actual jaundice.
5. Postcholecystectomy syndrome.
6. Suspicion of stones in common duct on oral cholangiography.
7. Stenosis of the common duct.
8. History of episodes of acute pancreatitis.
9. Spasm or stenosis of the ampulla of Vater.

MATERIAL

This paper is based on 232 cases of cholecystectomy and exploration of the common duct performed at the Missouri Pacific Employees' Hospital during the years 1953, 1954 and the first four months of 1955. We could see that with the increasing number of operative cholangiograms performed our technic has improved and the chances of leaving retained stones after exploration of the common duct or over-looked stones in primary cholecystectomy have decreased.

TABLE 1

Year	*Cholecystectomies*	*Operative Cholangiograms*	*Per Cent*		*Per Cent Choledocostomy*	*Stones Found*	*Per Cent*	*Mortality*	
1953	77	2	2.5	13	16.8	2	15.3	0	
1954	112	40	35.7	29	25.8	13	44.7	2	
1955 (4 mo.)	43	41	95.3	10	23.2	5	50.0	0	
Total	232	83	35.7	52	22.4	20	38.4	2	0.8

As shown by table 1 our operative cholangiographies done have increased from 2.5 per cent in 1953 to 95.3 per cent in 1955 (first four months of the past year). The operative mortality is two cases (0.8 per cent). A review of these two cases of operative death follows.

CASE REPORTS

Case 1. A 69 year old woman gave a history of having had an episode of acute intestinal obstruction in

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1951 produced by a large gallstone passed through a cholecystoduodenal fistula. In 1954 the patient was re-explored for postcholecystectomy syndrome and, on that occasion, the operative cholangiograms revealed retained stones in the common duct, all of which were removed. The postoperative cholangiogram performed the twelfth postoperative day showed marked obstruction at the level of the ampulla of Vater. The patient died on the fifteenth postoperative day following a severe episode of acute hemorrhagic pancreatitis. The autopsy failed to reveal any retained stones left on previous surgery.

Case 2. This patient was a 72 year old man who entered the hospital with a picture of acute cholecystitis with possible empyema of the gallbladder. On examination the patient was in poor condition and was considered a poor operative risk. For this reason his gallbladder was not drained that night. Next day patient developed what was thought to be an ascending cholangitis which fortunately subsided after intensive medical treatment. Following this the patient was prepared for exploration of the common duct and, during the operation, cholangiograms showed several stones in the common duct which were removed. The gallbladder was also removed and patient died on the sixth postoperative day following a severe attack of acute hepatitis, having developed an intense jaundice and generalized hemorrhages. Autopsy showed a huge retroperitoneal hematoma and did not reveal any retained stones in the common duct.

Of the fifty-two common duct explorations there was an operative mortality of two cases (3.8 per cent). Twenty patients (38.4 per cent) were found to have stones in the common duct. (From one patient seventeen stones were removed from the common duct.)

Of these fifty-two four patients (7.6 per cent) were found to have retained stones overlooked during the first operation performed many years previously. It is interesting to note that one of these patients was discarged from this hospital with retained stones.

In five cases (9.6 per cent) the control cholangiograms through the T-tube showed that we were leaving retained stones. In these cases the T-tube was removed, the common duct re-explored and the stones were removed. A second control cholangiogram showed a "clean common duct." It is important not to hesitate to remove the T-tube at any time and as many times as required until entirely satisfied one is leaving a "clean common duct." It is readily understood that the removal of calculi from the deep bile ducts is often difficult and, in the present series, in one case a small common duct stone, while being removed, slipped up away from the curette and lodged in the left hepatic duct where its removal was impossible in spite of all measures available. It is for this reason that operative cholangiography is desirable in every care, even though it cannot be carried out with 100 per cent perfect results.

TABLE 2

PATHOLOGY FOUND IN 52 COMMON DUCT EXPLORATIONS

	Cases	*Per Cent*
Stones in common duct and upper biliary ducts	20	38.4
Common duct stenosis	8	16.3
Spasm of ampulla of Vater	10	20.4
Carcinoma of biliary ducts	2	4.0
No pathology found	12	23.0
Total	52	

The unnecessary common duct exploration and sometimes the unnecessary duodenotomy has been decreased, reducing to a minimum the morbidity and postoperative mortality.

All the patients reported in this paper were carefully evaluated preoperatively. All of them had oral cholecystogram and some of them intravenous cholangiogram. Liver profile was done as routine in all of them (prothrombin time, BSP, cephalin cholesterol flocculation). One patient had had four previous operations for postcholecystectomy syndrome.

According to Pribram, common duct stones are missed from 16 to 25 per cent of the time, and 95 per cent of the subsequent operations are done for retained stones overlooked at the time of the biliary operation. It is for this reason that we are doing operative cholangiography as routine in cholecystectomy. In ten cases (12.0 per cent) the operative cholangiography revealed stones in an otherwise normal common duct, and had not operative cholangiography been used would have been missed.

TABLE 3

OPERATIVE CHOLANGIOGRAPHY WAS PERFORMED IN THE FOLLOWING INSTANCES

	Cases	
Primary cholecystectomy	74	
Post-cholecystectomy syndrome	5	
Possible carcinoma of head of the pancreas. Obstructive jaundice	1	
Recurrent acute pancreatitis	2	
Obstructive jaundice, possible common duct stone	1	
Total	83	
Stones discovered by operative cholangiography	10	12.0%

THE NORMAL CHOLANGIOGRAM

On a normal operative cholangiogram with normal biliary structures, the following structures should be perfectly visualized: (1) common duct in its three different portions, (2) right and left hepatic ducts, (3) intrahepatic biliary tree, (4) small segment of the cystic duct (ligature placed over the cystic duct halts the reflux of opaque media into the gallbladder), (5) ampulla of Vater, (6) many times a reflux of opaque media is seen into the main pancreatic duct demonstrating the existence of the so-called "common channel," (7) free opaque media into the lumen of the duodenum, demonstrating the easy and undisturbed passage of opaque media through the ampulla.

Therefore the nonvisualization or the imperfect visualization of any structure mentioned could be due to three reasons: (1) presence of some pathologic condition in the biliary ducts (stones, stenosis, intrinsic or extrinsic tumors), (2) imperfect or poor technic on the performance of the operative cholangiography (air bubbles, leakage of opaque media into the peritoneal cavity) or misinterpretation due to lack of experience, (3) congenital anomalies of any of the biliary structures (entrance of the duct into a diverticulum of the duodenum).

All of these factors have to be considered by the surgeon at the time of the operation and the films discussed with his assistants to decide the indication for a common duct exploration or any other procedure. The second factor can be eliminated by the experience, more frequent operative cholangiography and close collaboration of the whole team of assistants, nurses, x-ray technicians and anesthetists. The whole team has to act in an accurate manner. A minimal error in technic can produce defective films. The third factor can be eliminated by having a good knowledge of the multiple varieties of congenital anomalies of the biliary structures and their blood supply.

The control cholangiogram performed through a T-tube after a common duct exploration should always be done before proceeding to close the peritoneal cavity, and the surgeon should be satisfied of a "clean common duct" because on this depends saving the patient many further operations for retained stones. In several instances stones were removed from what was considered a well explored common duct and the stones were discovered by the control cholangiogram. Attention must be paid to the so-called false positive or false negative cholangiogram for the procedure is not 100 per cent accurate.

OPERATIVE TECHNIC

Operative cholangiography is a test that must be performed accurately in order to get conclusive films. A close collaboration must exist between all the members of the team. The surgeon and assistants must be familiarized with one or two different technics for operative cholangiography. The summary of the equipment, instrumentation and stages is as follows:

Equipment—The operating table must be equipped with a special lead screen to protect the anesthetist from the radiation. Special mattress must have a place to admit a portable Potter-Bucky diaphragm. Portable x-ray machine of 30 ma, 80 Kv and several loaded 10 x 12 x-ray chassis are needed; also electrocautery.

Instrumentation—That commonly used in cholecystectomy and exploration of common duct, two or three ureteral catheters nos. 4 and 5, or polyethylene tube, 20 cc. syringe, and a set of three or four specially angled hypodermic needles no. 22 1 inch long (see fig. 1), several ampules of urokon 30 per cent (opaque media most used by us), warmed to body temperature.

OPERATIVE STAGES

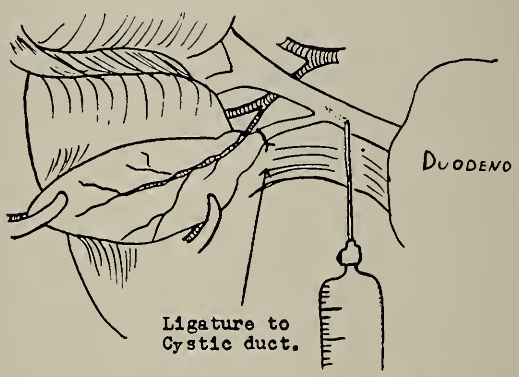
1. A scout film of the right upper abdomen is taken with the patient on the operating table and before the anesthesia is started. This assures the patient and the Potter-Bucky diaphragm being in correct position, and if there is any radiopaque object that can give an artefact in the films.

2. Anesthesia (endotracheal, pentothal-gas-oxygen).

3. Skin incision (any one of those commonly used in cholecystectomy). We prefer the right upper paramedian splitting incision. The wound is draped with towels sutured to the edges of the wound with 2-0 black silk. (Towel clips must never be used because their shadows sometimes obscure the films.)

4. After opening the peritoneum, exploration, packing and retraction are carried out as usual in the cholecystectomy, the different biliary structures and their blood supplies being dissected and identified (common duct, cystic duct, cystic artery, and right hepatic artery). At this stage of the operation the x-ray machine is moved in position and immediate or primary cholangiogram is performed employing either one of the two following technics:

A. Direct injection of 30 per cent urokon into the common duct by means of the angled needle developed by us (see fig. 1).



Direct injection of the opaque media to the Common Duct by using the special angled needle.

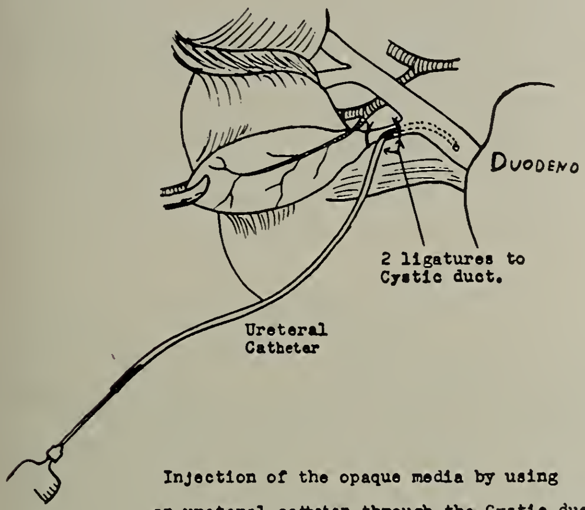
C. LIZAMA

a. Cystic duct is ligated proximal to the gallbladder in order to avoid reflux of opaque media into the gallbladder.

b. Using 20 cc. syringe containing the 30 per cent urokon and with the special angled needle free of air bubbles, the opaque media is injected to the common duct at a point approximately 1 or 1½ cm. below the cystic junction. Aspiration of bile must always be done as a safety measure. Slowly and without spilling, the dye is injected.

c. The tiny hole left in the common duct is sealed by touching it slightly with the electrocautery. Cleansing of any spilled dye in the peritoneal cavity must be done, and retractors, sponges, and laps must be removed in order to avoid any distortion by compression of the biliary structures, which could give the picture of a stenosis or other sort of lesion.

d. Exposure of the films must be done during a short period of apnea induced by the anesthetist by squeezing the breathing bag. This detail is of the utmost importance because films taken in a breathing patient are blurred and confused. A set of two films are taken as fast as possible with an exposure of four seconds at 30 ma, 80 Kv., 30 inch tube plate.



Injection of the opaque media by using an ureteral catheter through the Cystic duct.

B. Technic by using a ureteral catheter (or polyethylene tube) (fig. 2).

a. Cystic duct is ligated proximal to the gallbladder as in the preceding procedure with 2-0 silk.

b. Through a small opening made in the cystic duct a ureteral catheter nos. 4 or 5 is inserted to a distance calculated about the middle of the common duct; another ligature of 2-0 silk is placed around the cystic duct containing the catheter in order to avoid spillage of opaque media.

c. Retractors and sponges are removed.

d. Twenty cc. of urokon 30 per cent are injected through the catheter and films are taken using the same precautions mentioned in the other procedure.

5. While films are being developed appendectomy or any other procedure is performed.

6. After examining the films, if the cholangiograms show normal biliary structures, the gallbladder is removed as usual and the wound closed, leaving a Penrose drain. It is worthwhile to note that on both procedures described, the cystic artery is intact, and the gallbladder can still be used in any instance of extreme emergency (as severe lesion to the common duct). If the films reveal any pathologic condition of the common bile duct this structure is explored as usual and closed with interrupted stitches of 3-0 chromic catgut with atraumatic needle leaving a T-tube in place. This suture line must be waterseal tight in order to be able to inject the opaque media without having any leakage through the suture line. The control cholangiogram is then performed by injecting 20 or 30 cc. of 30 per cent urokon through the T-tube and taking as many films as is considered necessary, taking the precautions mentioned in order to get neat films. All these details are of the utmost importance because on this depends saving the patient one or several subsequent operations. The T-tube must be removed as many times as considered necessary until satisfactory cholangiograms are obtained to ascertain that no stones or any other pathologic condition has been overlooked.

Precautions—The anesthetist at all times must be protected from the radiation by a lead screen, and during the exposure it is recommended that the surgeon, assistants and nurses step away as far as possible from the radiation. This is important in places where operative cholangiograms are done frequently.

TABLE 4

OPAQUE MEDIA USED

	Cases	*Per Cent*
Urokon 30 per cent	74	90.3
Diodrast	8	9.6
Lipiodol	1	1.2
Total	83	

ADVANTAGES AND DISADVANTAGES OF THE TWO PROCEDURES

Advantages of the direct injection into the common duct by using the special angled needle are (1) no specialized instrumentation for the injection of the opaque media is required, (2) the way of injection is easy and the chances of air bubble injections are minimal if a neat technic is employed, and (3) the films are clean of any opaque foreign body (catheter or polyethylene tube).

Disadvantages are (1) difficulty of injecting in opaque media into the portal vein by perforation obese patients, (2) chances of injection of the of both walls of the common duct. (One accident of this nature was observed in the series of cases presented in this paper.) It is an accident which has no consequence if it is immediately recognized. To prevent this, aspiration with a syringe must be done before injecting the dye. (3) During the first two or three postoperative days patients sometimes drain bile profusely, or drainage may last eight to ten days prolonging the hospital stay of the patient.

Advantages of the technic with the catheter or polyethylene tube are (1) The injection of the opaque media is started after the packs are removed and the wound is covered with a towel which makes an easy method of injection. If it is desired, films can be taken after the first 5 cc. of opaque media are injected and the second films taken after the rest of the dye is injected. (2) The accidental spillage of opaque media into the peritoneal cavity is remote, if snug ligature has been placed around the cystic duct containing the catheter. (3) Since the introduction of the catheter is made through the cystic duct, the common duct remains intact (unless this structure undergoes an exploration); therefore, the postoperative drainage is minimal as usual in a simple cholecystectomy.

Disadvantages are (1) It is sometimes difficult and laborious to insert the catheter through the cystic duct due to either a rather narrow duct or due to the impossibility of traversing the valve of Heister located at the entrance of the cystic duct into the common duct. (2) The ureteral catheter is radiopaque (or the polyethylene tube full of opaque media) which shows up on the films, many times being superimposed on the biliary structures. (3) It is easy to insert the catheter or polyethylene tube too far down into the common duct and pass the ampulla of Vater making the injection of opaque media into the duodenum. (This accident should not happen if a precise technic is employed.)

DISCUSSION

Our results agree with the generally accepted values of the immediate primary cholangiogram and control cholangiograms. We could observe that the false negative occurs in cases of small nonobstructing stones. Therefore operative cholangiograms alone cannot take the place of common duct exploration when clinical or operative findings suggest the possibility of stones in the common duct. For the same reason common duct exploration alone without the control cholangiogram can conduce the overlooking of small stones, so each procedure needs the help of the other, and we believe that this is the only promising way at the present time to reduce the problem of residual stones in the common bile duct.

SUMMARY

1. Two different technics for operative cholangiography have been described, their advantages and disadvantages are mentioned.
2. Both technics can be performed without any special instrumentation. The angled needle devised by us can be made out of a regular no. 22 B-D hypodermic needle.
3. The number of operative cholangiograms made has increased, and its indications synthesized. During 1953, 1954 and the first four months of 1955, 232 cholecystectomies were performed during which eighty-three (35.7 per cent) operative cholangiograms were made. In fifty-two cases (22.4 per cent) the common duct was explored. In one case seventeen stones were removed.
4. Of the stones removed 7.6 per cent were retained stones left from previous common duct explorations. In 9.6 per cent the control cholangiogram through the T-tube showed that we were leaving stones behind.
5. Operative mortality was 0.8 per cent. Morbidity was minimal.
6. Operative cholangiography as a routine in biliary surgery is suggested.
7. Control cholangiogram must always be done through a T-tube after any common duct exploration and postoperative cholangiograms ten to twelve days postoperatively before attempting to remove the T-tube.
8. It is advisable not to remove the gallbladder or interfere with its blood supply until finishing the common duct exploration. In case of a lesion of this structure, the gallbladder is a life-saving measure. In both technics mentioned in this paper, the gallbladder and its blood supply are intact.
9. Operative cholangiography is a precision test which has to be done with accuracy. The entire team must be familiarized with at least one or two technics.

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MORTALITY DECREASE

A vast reduction in the death rate of Americans at all ages has saved large numbers of people from premature death, especially at the most productive ages of life. Had the 1900 mortality rates prevailed in 1950, in that one year there would have been more than a million and a half additional deaths: more than 400,000 additional infants under 1 year of age would have died; more than 420 additional deaths would have occurred in the ages 1 through 24 years; more than 510,000 additional deaths would have occurred among persons 25 through 64 years of age; more than 260,000 more people 65 years of age or older would have died.

The Immediate Handling of Traffic Injuries

J. ALBERT KEY,* M.D., AND LEE T. FORD, M.D., *St. Louis*

THE FACT THAT traffic accidents are now the third most frequent cause of death indicates that the immediate care of such patients is the concern of all physicians, even though the more grave injuries may later demand the care of a specialist.

The frequency and severity of injuries suffered in highway accidents and the paucity of literature dealing with what should be done at the site of the accident, immediately thereafter, and in the hospital prompted this paper.

Fortunately, in this motorized age such accidents usually occur on highways or in cities where an ambulance can be obtained quickly and the patient can be transported to a hospital in a relatively short time. All ambulances should be provided with an adequate emergency kit and the driver and attendant should know how to use it and should have current Red Cross First Aid cards.

As the importance of the time elapsed before the beginning of definitive treatment is measured in hours rather than in minutes, speed of the ambulance is secondary to care and gentleness in handling the patient. With the exception of dangerous hemorrhage or a sucking wound of the chest with a positive pneumothorax, both of which should be controlled at the scene of the accident if possible, we know of no condition in which the life or limb of a patient is lost because of a delay of a few minutes. The important thing is to do no harm. This in spite of the fact that recently the St. Louis papers reported the case of a boy who was rushed to St. Louis with police escort from a distance of about 150 miles and was dead on arrival at the hospital. It is doubtful that the life of this patient could have been saved if he had been injured in the street in front of the same hospital. He died of a fatal brain injury.

In this paper only what is to be done at the scene of the accident and at the hospital before the gravely injured patient is in the hands of the surgeon who is to be responsible for the case will be considered.

WHAT SHOULD BE DONE AT THE SCENE OF THE ACCIDENT

The victim or his body should be removed from the vehicle, if he cannot escape unaided. If he is dead, that is a matter for the coroner. If he has an open wound and is bleeding copiously, this should be arrested as soon as possible. In most instances, and especially in head and face wounds, this is best done by a pressure dressing and, if indicated, the bleeding can be lessened by digital pressure until such a dressing can be applied. Sterile pads and elastic bandages are best but, lacking such, a pressure pad and bandages should be improvised from clothing or any material at hand, putting the cleanest material next to the wound. In this antibiotic age sterility of the emergency dressing is not as important as in the past because the patient is going to receive antibiotics and the wound will be cleansed, debrided and probably sutured within a few hours and bacteria from the dressing added to those already in the wound will not have a chance to invade the tissues.

If the bleeding is from an extremity and the pressure dressing does not control it, a tourniquet should be improvised and applied. This should not be left on for more than an hour without loosening briefly (about 30 seconds) and re-applying and the time when it is applied should be noted. When loosening the tourniquet digital pressure should be applied over the severed vessel. A tourniquet is used only when the bleeding cannot be controlled by a pressure dressing because the latter permits collateral circulation and this may save an extremity which might have been lost if a tourniquet had been used for too long a time.

If the patient is unconscious, he should be lifted to the side of the road, turned on his side with the mouth down to facilitate drainage and, if indicated, protected from the weather until an ambulance can take him to a hospital. In the ambulance and at the hospital he should lie on his side until definitive treatment is instituted. Also, unconscious or confused patients should not be given morphine or any other sedative.

If the patient appears to be in shock, and especially if he appears to be suffering from internal injuries or a severe back injury, he should be lifted gently to the side of the road, arranged comfortably (usually this is lying on his side or back), protected from the weather if necessary to wait for the ambulance. In lifting such patients the spine should be supported in the middle as well as at both ends (three to lift) and the torso should be bent or stretched as little as possible. The same is true of a patient whose lower extremities appear to be intact but who for any reason is unable to stand and walk.

If the neck appears to be broken or is severely injured this should be steadied manually with moderate traction on the head when the patient is moved and he should lie and be transported on his back with a small pillow under the back of the neck and supports on either side of the head.

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* This paper was prepared shortly before the death of Dr. Key.

From the Department of Surgery, Washington University School of Medicine, Barnes and Wohl Hospitals, St. Louis.

At all times rotation or lateral bending and especially flexion of the chin on the chest should be avoided.

With fractures of the major bones of the extremities the patients are most comfortable lying on the back with the extremity supported to preserve alignment. Such patients should be placed on the side of the road and the extremity straightened and aligned by slow, strong, steady traction with countertraction. This may reduce the displacement but no harm will be done. Patients with fractures of the lower extremity should wait for an ambulance, but those with fractures of the upper extremities may be transported in an automobile or truck.

Major fractures should, if possible, be splinted before the patient is transported, and this applies to both simple and compound fractures of the arm, forearm, hip, thigh, leg and ankle. Transportation of patients with major fractures of long bones without splinting is not only painful to the patient, but increases the hemorrhage and shock and may cause increased damage to the soft tissues.

For the lower extremity a Thomas half or full ring knee splint is best but is not usually available, so it may be necessary to improvise a board or pillow splint. If the thigh or knee is broken the board should extend from the axilla to beyond the heel and should be padded with clothing or blankets where necessary and then bound to the chest, pelvis and extremity. The same splint is useful for fractures below the knee including the ankle. Here, however, lacking a long board, binding the splint to extend from the pelvis to beyond the heel is satisfactory. The shoe should not be removed but should be bound firmly to the splint. A small pillow or pad placed beneath the knee will add to the stability of the extremity and the comfort of the patient. Likewise, the inner side of the extremity should be padded at points where it is crossed by ties which bind it to the splint unless these are quite wide.

Lacking a long board, considerable stability may be afforded for a fracture of the hip by binding the thighs, legs and feet together with a pillow or other padding between the limbs.

For fractures below the knee including the ankle, a large soft pillow is comfortable and efficient. The leg and foot are placed on the pillow and its sides are folded over the leg and pinned. Then the end which projects beyond the heel is lapped around the foot and pinned. Added stability is afforded by three boards which are placed with one beneath and one on each side of the pillow and bound tightly to it.

For the upper extremity, short thin boards or heavy cardboard with a moderate amount of padding should be bound to the arm or forearm or both, and the forearm should be supported in the horizontal position across the chest by a cravat sling. The splint should project beyond the elbow and wrist, and the arm may be bound to the chest for added stability.

Fractures of the skull, face, hands and feet require no splinting and, if the general condition seems to be satisfactory, wounds, if present, should be covered and the patient sent to the hospital or to the doctor's office for treatment where he can receive immediate definitive treatment.

WHAT SHOULD BE DONE AT THE HOSPITAL

Admission to the hospital should be streamlined and the patient should receive immediate attention. He should be provided an open airway if there is any obstruction. His general condition should be assessed. If he is bleeding sufficiently to be of importance the hemorrhage should be arrested by a pressure dressing or tourniquet or, if necessary, by a clamp on the bleeding vessel under nonaseptic conditions.

If he is in shock, this should be treated by elevation of the feet, restoration of body heat with warm blankets, relief of pain with morphine or demerol unless there is a severe head injury, by giving of oxygen if there is air hunger or grey cyanosis and by splinting major fractures. If the blood pressure is dangerously low he may require immediate transfusion with plasma or a blood substitute or glucose solution to be followed or replaced by whole blood as soon as this is available. (Type O, Rh negative blood may be obtained immediately from the blood bank, if one is available, and will save about an hour's time or more.)

If the patient is unconscious he should be placed in bed on his side with the mouth down for drainage and watched by an attendant until definitive treatment can be given. He should be catheterized and given 50 cc. of 50 per cent glucose intravenously to combat edema of the brain. This is given very slowly (20 minutes) and repeated in two hours and later as indicated and this should be started as soon after admission as possible. If primary unconsciousness from the cerebral concussion is followed by a lucid interval and the patient again lapses into unconsciousness, a middle meningeal hemorrhage should be suspected and this may demand prompt surgical intervention.

If the patient has a major fracture (simple or compound) which is not splinted, an emergency splint should be applied as soon after he enters the hospital as possible. If there is an open wound the emergency dressing should be removed, the wound inspected, a sterile dressing applied and the extremity resplinted if necessary. This is to permit assessment of the wound in order to plan subsequent treatment or to administer definitive treatment. With a fracture of the hip, adhesive traction should be applied and a 10 pound weight hung over the foot of the bed and the limb supported with sand bags or pillows. If a patient is in shock his fracture can be splinted while treatment for shock is being instituted, because immobilization of the fracture will aid in combating the shock. It should also be done if he is unconscious.

No patient with a major fracture of an extremity should ever be sent to the x-ray room unsplinted. This adds to the shock and pain and may result in further damage to the soft tissues. If the fragments are satisfactorily immobilized in an emergency splint and he is not in shock or unconscious he can be sent to x-ray immediately and from there to the operating room if this is indicated. This is true whether or not the fracture is compound.

In the x-ray room x-rays of the fractured bone should be taken in two planes, and more if necessary. An exception to this is a fracture of the hip. Here all needed information can be gained from the anteroposterior view. Having had the experience of aged patients with severely comminuted trochanteric fractures suffering severe pain while the x-ray technician manipulated the extremity in order to carry out the doctor's orders and get a lateral x-ray of the hip, anteroposterior view only is now specified on the requisition. If this is equivocal, then lateral views can be made because in such cases movement is not too painful and does no harm.

A patient in shock should not be sent to the x-ray room until he has been treated for and reacted from the shock.

In fractures of the spine or pelvis, if the patient is not in shock, the patient can be sent to the x-ray room immediately. But the precautions in lifting these patients and in handling injuries of the cervical spine should be observed in the hospital as well as at the scene of the accident. Hospital walls do not insure against further damage from incorrect handling.

With fractures of the pelvis the state of the bladder and urethra should be investigated. If the patient can pass clear urine, all is well. If not, he should be catheterized. If a small amount of bloody urine is obtained, then a cystogram needs to be performed. If the catheter will not enter the bladder, immediate cystostomy is indicated. If a large amount of bloody urine is obtained, this suggests contusion of the bladder or kidney and he may be treated expectantly if the cystogram shows an intact bladder.

If there is evidence of internal injury in the chest or abdomen the disposition should await the surgeon who is to be in charge of the case. Exceptions are sucking wounds in the chest which should be stopped and positive pneumothorax which demands immediate aspiration.

If the fracture is compound or if there are lacerations requiring suture, the patient should be given tetanus antitoxin (1,500 units) or a booster dose (1 cc.) of tetanus toxoid if he has been immunized and a relative large dose of antibiotics: penicillin (400,000 units) or one of the newer tetracycline drugs. With the use of these antibiotics, administration of prophylactic polyvalent gas gangrene is not necessary. It may be used later should a gas bacillus infection develop.

From here on the patient is in the hands of the surgeon who is to render definitive treatment for his injuries and who then assumes the responsibility. But if these precautions are observed up to this point, those who have handled him may rest assured that the injured person has been given the best chance, not only for survival, but for recovery of function in the injured parts.

SUMMARY

At the Scene of the Accident

1. See if the patient is living.
2. See that he has an open air way.
3. Arrest serious hemorrhage.
4. Arrange patient comfortably.
5. Cover wound.
6. Splint major fractures of the extremities.
7. Protect from weather if necessary.
8. Handle gently and avoid further injury during transportation.

At the Hospital

1. Is patient living or dead?
2. Streamline admission.
3. Assess general condition of patient.
4. Provide open air way if necessary.
5. Arrest serious bleeding.
6. Treat shock if present.
7. Administer 50 per cent glucose if unconscious.
8. Splint serious fractures if they are not well splinted.
9. Protect spine injuries from further injury.
10. Check bladder if pelvis is fractured.
11. Administer antitetanus serum and antibiotics.
12. Relieve pain by morphine or demerol only if patient has no serious head injury.
13. Send to x-ray with fractures splinted.
14. Send to operating room if indicated.

4952 Maryland Ave.

CHILD MORTALITY

Children less than 14 years of age have benefited most from the decline in mortality since 1900: the death rate for infants under 1 year of age has declined nearly 80 per cent; a 93 per cent improvement in the mortality rate of children 1 through 4 has been made; for children 5 through 14, mortality rates have decreased 85 per cent, with accidents now the chief causes of death in this group.

Epididymectomy for Recurring Disabling Epididymitis

E. HUMBER BURFORD, M.D., AND C. E. BURFORD, M.D., *St. Louis*

FORMERLY EPIDIDYMECTOMY was reserved for suppurative tuberculous epididymitis. A review of the literature fails to reveal any specific reference to this condition since Campbell's report in 1928, in which he stressed multiple puncture and drainage in most cases. The etiology is not always apparent but some cases can be attributed to trauma, still more are probably activated by a chronic prostatitis and seminal vesiculitis.

Since 1945 some thirty-eight cases of epididymectomy have been performed. The age of these patients varied from 21 to 80 with the average age being 45 years. The side involved were twenty-one right and fourteen left with three cases being bilateral. No pathologic or clinical evidence of gonorrhea or tuberculosis could be established. There were small hydroceles varying in size from 10 to 50 cc. in conjunction with epididymitis in four of the cases. Two patients gave a history of mumps involving the epididymus as a possible initiating factor. Eight gave some form of trauma as cause and eighteen mentioned no causative factor at all.

The recurrent attacks are rather typical, and follow some unusual exercise or effort. Some patients have attributed the recurrent attacks to alcoholism and sexual excess. There is pain and tenderness along the course of the spermatic cord and the epididymus swells rapidly and becomes painful and extremely tender to the point of disability which usually lasts for several days. The patient may have from one to twelve recurrent attacks over a period of from two to twelve years before consulting a urologist. Loss of time from work varies from one to three weeks during these acute phases. Pain on the affected side of the scrotum was referred up the corresponding cord and radiated to groin, lower abdomen, perineum or all of these sites and, frequently, was accompanied by nausea and even vomiting. There were varying degrees of swelling but usually the epididymus (not the testicle) was enlarged from two to four times normal, was hard and painful to palpation. Fever, often present during the acute phases, varied from 1 to 4 degrees F. over normal.

After trying many forms of treatment none of which prevented the recurrent attacks, the epididymus was carefully dissected from the testis including 5 to 10 cm. of the vas deferens. Since the inflammation followed by much scar tissue has caused sterility on the affected side, the operation does not sterilize the patient. The testicle is supplied by the testicular artery which has four branches, two in the vicinity of each pole of the testicle corresponding to the position of the head and the tail of the epididymus. Often it is impossible to remove all the epididymus without sacrificing one or more of these branches. It is not necessary to remove the entire epididymus to achieve a good result.

Mistakes most frequently observed with this operation include sacrificing of too much of the blood supply of the testicle, thereby contributing to its subsequent atrophy. Another error is failure to adequately correct an accompanying hydrocele. Suggestions to prevent this are to isolate the vas deferens from the cord and blood supply. Using the vas as a guide to the epididymus, free it down to the proper lines of cleavage, thus sparing the blood supply. Bottle operation can be performed on the hydrocele before the testicle is returned to its bed without torsion. A small rubber tissue drain for two to three days with pressure suspensory dressing of adhesive will permit ambulation if necessary.

Results were routinely excellent except in two cases. They had residual tenderness for from two to three months and one patient a year later required orchiectomy for relief. There were no complications.

The rather typical history and physical findings make the diagnosis. This condition should be differentiated from epididymitis both of gonorrheal and tuberculous origin.

A cure may be anticipated with a carefully performed epididymectomy and ability to work again as well as retain seniority may be expected.

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From Department of Surgery, Section on Urology, St. Louis University School of Medicine, St. Louis.

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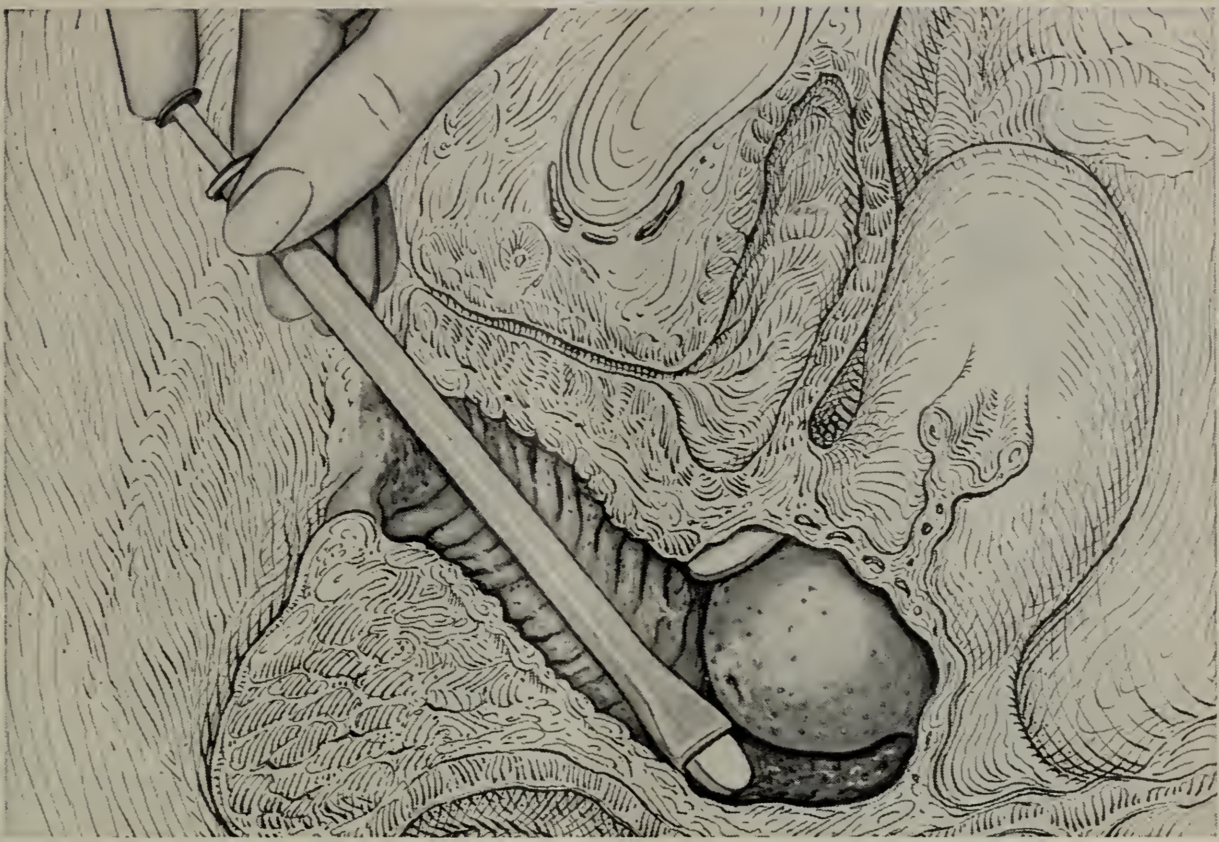

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SEARLE

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President's Page

This will be my last message to the members of the Missouri State Medical Association and it is a "last call" not "for lunch" or "for all good men to come to the aid of the party," but for all members of the Association to come to the 98th Annual Session. It is for both the good of the member and the Association. It is only you as a good member that can make the MSMA better. I urge you, one and all, to come to St. Louis for the 1956 Annual Session.

The program for the session, as well as the schedule of time of meetings and special events, appears again in this issue. The names of Delegates who will serve in the House of Delegates were printed in the March issue of Missouri Medicine, as were descriptions of the many technical exhibits that will be presented.

The committees responsible, including the committees from the two host societies, have provided an excellent meeting, one at which I will be proud to preside, as I have been proud and privileged to serve the Association during the last year.

See you in St. Louie, April 8?

in arthritis
and
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(1) Payne, R. W.; Shetlar, M. R.; Farr, C. H.; Hellbaum, A. A., and Ishmael, W. K.: J. Lab. & Clin. Med. *45*:331, 1955. (2) Bunim, J. J.; Williams, R. R., and Black, R. L.: J. Chron. Dis. *1*:168, 1955. (3) Holbrook, W. P.: M. Clin. North America *39*:405, 1955.

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EDITORIALS

Committees for Annual Session

Hosts for the 98th Annual Session of the Missouri State Medical Association will be the St. Louis Medical Society and the St. Louis County Medical Society. Members of these two societies will serve on committees to facilitate various phases of the session. The General Committee on Arrangements is composed of R. O. Muether, M.D., St. Louis; Ben M. Bull, M.D., Ironton, and Joseph C. Creech, M.D., Troy.

The committees appointed by the two societies from their members follow:

Executive Committee: Daniel L. Sexton, M.D., and Louis F. Howe, M.D., Cochairmen; Edward Helbing, M.D.; James W. Colbert, M.D.; Leonard T. Furlow, M.D.; Charles L. Eckert, M.D.

Arrangements: R. O. Muether, M.D., and M. A. Diehr, M.D., Cochairmen; A. N. Arneson, M.D.; C. E. Sterling, M.D.; Roland Stuebner, M.D.; L. R. Sante, M.D.; J. W. Thompson, M.D.; Wayne Simril, M.D.

Publicity: Martyn Schattyn, M.D., and Delevan Calkins, M.D., Cochairmen; John Skinner, M.D.; Arthur W. Neilson, M.D.; Robert A. Kelley, M.D.; Willard Bartlett, M.D.; C. E. Sterling, M.D.

Entertainment: E. B. Drescher, M.D., and Jerome I. Simon, M.D., Cochairmen; Stanley F. Hampton, M.D.; G. H. Berndsen, M.D.; E. E. Tremain, M.D.; Charles E. Martin, M.D.; Robert D. Woolsey, M.D.

Hotels: Roy Walther, Jr., M.D., and David N. Kerr, M.D., Cochairmen; Fred Kramer, M.D.; Robert Mayer, M.D.; Wendell G. Scott, M.D.; Harry Wittler, M.D.; Joan M. Goebel, M.D.; Katherine Crawford, M.D.

Registration: Eugene M. Bricker, M.D., and Frank Valach, M.D., Cochairmen; Max Franklin, M.D.; Robert Hughes, M.D.; Leo J. Hartnett, M.D.; LeRoy Ellison, M.D.; Michael M. Karl, M.D.

Scientific Exhibits: James P. Murphy, M.D., and George J. L. Wulff, M.D., Cochairmen; Oscar P. Hampton, M.D.; Joseph C. Edwards, M.D.; Dean Sauer, M.D.; N. J. Eversoll, M.D.; Charles Sherwin, M.D.; R. L. Gieselman, M.D.; Carl Irick, M.D.

Attendance: Charles R. Doyle, M.D., and Fred Tieber, M.D., Cochairmen; Robert Kingsland, M.D.; Robert J. Mueller, M.D.; A. J. Steiner, M.D.; Sam Merenda, M.D.; James Meador, M.D.; Preston C. Hall, M.D.; William Grundman, M.D.

Past Presidents' Banquet: Leslie D. Cassidy, M.D., and Lois Wyatt, M.D., Cochairmen; Edgar Davis, M.D.; J. Ernest Jensen, M.D.; Carl E. Lischer, M.D.; E. R. Brown, M.D.; O. P. J. Falk, M.D.

Reception: Alphonse McMahon, M.D., and Guy N. Magness, M.D., Cochairmen; John C. Morfit, M.D.; R. Emmet Kane, M.D.; Cyrus E. Burford, M.D.; Louis F. Howe, M.D.; Martyn Schattyn, M.D.; M. A. Diehr, M.D.; Roland Hill, M.D.; C. H. Neilson, M.D.; Cleveland H. Shutt, M.D.; Oscar P. Hampton, M.D.; Fred Teiber, M.D.; James Meador, M.D.; Charles E. Hyndman, M.D.; Neil S. Moore, M.D.; Curtis H. Lohr, M.D.; Joseph C. Peden, M.D.; Frederick E. Woodruff, M.D.; Robert Mueller, M.D.; Edwin C. Ernst, M.D.; Carl F. Vohs, M.D.; Llewellyn Sale, M.D.; J. W. Thompson, M.D.; Armand D. Fries, M.D.; L. R. Sante, M.D.; Jerome I. Simon, M.D.; A. N. Arneson, M.D.; R. O. Muether, M.D.; Daniel L. Sexton, M.D.; Louis H. Kohler, M.D.; James F. Dowd, M.D.; W. H. Bailey, M.D.; Paul R. Whitener, M.D.; Richard A. Sutter, M.D.; E. B. Waters, M.D.; F. L. Finley, M.D.; Harry J. Stein, M.D.; Eugene R. Brown, M.D.; R. L. Foster, M.D.; John J. O'Connell, M.D.; R. B. Denny, M.D.; J. A. Townsend, M.D.; A. W. Westrup, M.D.

Medical Society of the County of New York

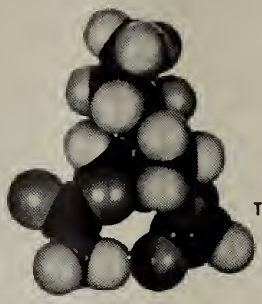
It is always a pleasure to congratulate and honor a sister medical society on the anniversary of its founding. It is most fitting, therefore, that the Medical Society of the County of New York be congratulated on the occasion of its 150th anniversary celebration.

New York County, the Island of Manhattan, not only has the largest of all local medical societies but it carries on the traditions of medicine in the busiest and most critical spot in the nation in terms of medicine. One uses the word "critical" without reference to the health of the citizens of New York. Their health is excellent and is the true measure of the splendid task that the physicians of our largest city are doing.

Rather one uses the word "critical" in connection with the newer problems of organized medicine—matters of medical economics, public relations, health information, medical care plans, public service projects—like 24-hour emergency call service and Grievance Committee, and the other facets of modern medical organization which affect the position of medicine in the public esteem.

What the Medical Society of the County of New York does in these and similar matters reflects upon the entire profession of medicine across the nation. Its every act is taken in the bright search-

(Continued on page 340)



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Missouri Medical Meetings

American Academy of Allergy, Chase Hotel, St. Louis; postgraduate review, Feb. 4-5; scientific session, Feb. 6-7-8, 1956.
Missouri State Medical Association, St. Louis, April 8-11, 1956.
St. Louis Pediatric Society—second Thursday of each month, September through May at Medart's Restaurant, 8:00 p.m.

Component Society Meeting Dates

Audrain County Medical Society—second Thursday of each month.
Barton-Dade County Medical Society—third Wednesday of each month.
Benton County Medical Society—meets only on call.
Boone County Medical Society—first Tuesday of each month.
Buchanan County Medical Socitey—first Wednesday of each month.
Butler-Ripley-Wayne County Medical Society—first Wednesday of each month.
Callaway County Medical Society—third Thursday of each month.
Cape Girardeau County Medical Society—first Monday of each month.
Chariton-Macon-Monroe-Randolph County Medical Society—second Thursday of each month September through May.
Clay County Medical Society—last Tuesday of each month.
Clinton County Medical Society—meets only on call.
Cole County Medical Society—third Tuesday of each month.
Cooper County Medical Society—first Monday after the 15th of each month.
Dallas-Hickory-Polk County Medical Society—first Wednesday of each month.
Dunklin County Medical Society—third Tuesday of each month.
Franklin-Gasconade-Warren County Medical Society—last Tuesday of each month at the St. Francis Hospital, Washington, at 12:30 p.m.
Grand River Medical Society (Caldwell-Carroll-Livingston, Grundy-Daviess, Harrison, Linn, Mercer, DeKalb)—second Thursday of each month.
Greene County Medical Society—fourth Friday of each month.
Henry County Medical Society—meets only on call.
Holt County Medical Society—meets only on call.
Howard County Medical Society—meets only on call.
Jackson County Medical Society—fourth Tuesday of each month execpt June, July and August, at auditorium of General Hospital No. 1.
Jasper County Medical Society—second Tuesday of each month, September through May.
Jefferson County Medical Society—meets only on call.
Johnson County Medical Society—meets only on call.
Laclede County Medical Society—second Monday of each month at 6:00 p.m., at the Louise Wallace Hospital, Lebanon.
Lafayette-Ray County Medical Society—second Tuesday of each month at 7:30 p.m., at the Victory Cafe, Lexington.
Lewis-Clark Scotland County Medical Society—meets only on call.
Lincoln-St. Charles County Medical Society—third Thursday of each month.
Marion-Ralls-Shelby County Medical Society—fourth Tuesday of each month. 7:30 p.m.
Miller County Medical Society—meets only on call.
Mineral Area County Medical Society (St. Francois-Iron-Madison-Washington-Reynolds-Ste. Genevieve)—fourth Thursday of each month.
Moniteau County Medical Society—second Thursday of each month.
Newton County Medical Society—meets only on call.
Nodaway-Atchison-Gentry-Worth County Medical Society—first Monday in February, April, October and December.
North Central Counties Medical Society (Adair-Schuyler-Knox-Sullivan-Putnam)—meets only on call.
Ozarks Medical Society (Barry-Lawrence-Stone-Christian-Taney)—second Tuesday of each month September through June.
Pemiscot County Medical Society—third Thursday of each month.
Perry County Medical Society—second Thursday of each month.
Pettis County Medical Society—third Monday each month September through May.
Phelps-Crawford-Dent-Pulaski-Maries County Medical Society—fourth Thursday of each month.
Pike County Medical Society—third Tuesday of each month.
Platte County Medical Society—meets only on call.
St. Louis County Medical Society—second and fourth Wednesday of each month.
St. Louis Medical Society—first, third and fifth Tuesday of each month October through May.
Semo County Medical Society (Stoddard, New Madrid, Mississippi, Scott)—third Wednesday of each month September through May.
South Central Counties Medical Society (Howell-Oregon-Texas-Wright-Douglas-Ozark)—fourth Wednesday of each month.
Vernon-Cedar County Medical Society—meets only on call.
Webster County Medical Society—meets only on call.
West Central Missouri Society—second Thursday of each month.

Musings of the Field Secretary

More than 100 people attended the dinner meeting of the Greene County Medical Society, Friday evening, February 24, at Springfield.

The scheduled speaker, Mr. Leo Brown, executive assistant to the general manager in charge of public relations for the American Medical Association, who was flying to Springfield, was unable to make the trip because of fog-grounded planes in Chicago. Mr. Joe Slattery, program director of KWTO at Springfield and also announcer for the TV network show "Ozark Jubilee," ably substituted for Mr. Brown.

The talk given by Mr. Slattery entitled "What's in It for Me?" dealt with public relations, which was the first of a series of special society pograms.

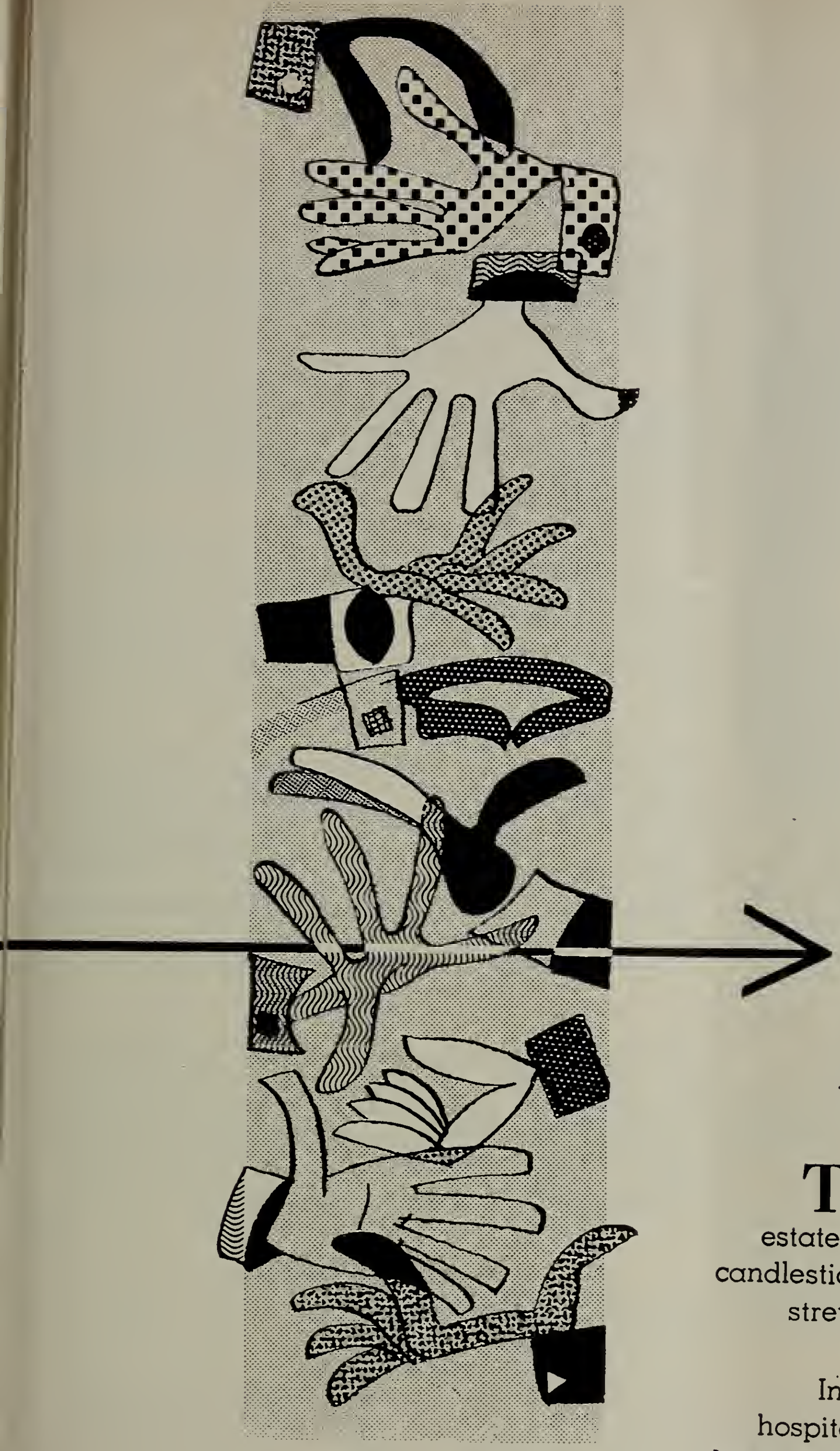
Guests from other professional fields are being invited to these programs. Special guests at this meeting included chairmen of the boards of Springfield hospitals, hospital administrators, directors of the health departments and lay executives of community health organizations. Guests to be invited later include lawyers, dentists, drug and pharmaceutical representatives and the staff of the U. S. Medical Center at Springfield.

Is not this one good example of how a medical society can reach a number of its publics?

What may well be termed an effective "in-service" training course for medical society executives was held at the Drake Hotel, Chicago, February 6 to 8, 1956. This training institute was sponsored by the Medical Society Executives Conference with blessings from the American Medical Association. It was the first of its kind, combining refresher work for old members with sound indoctrination of newer ones in the technics of the executive service which medical organizations employ executive personnel to per-

(Continued on page 335)

The president called the meeting to order.



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News

"Relationships of Physical and Emotional Illness" was the subject of a lecture presented by **E. Haydn Trowbridge, Jr.**, M.D., Kansas City, before student nurses at Research Hospital, Kansas City, on February 1.

"Father Abraham," a symphonic suite composed by **Vincent T. Williams**, M.D., Kansas City, was given its premiere performance by the Topeka Civic Symphony Orchestra in Topeka on January 25.

At the American Academy of Orthopaedic Surgeons in Chicago the last of January, **Frank Dickson**, M.D., Kansas City, spoke on "Low Back Pain."

"Acute Kidney Failure" was the subject of an address by **Paul N. Johnstone**, M.D., Kansas City, before the Kansas City Branch of the South Central Section of the American Urological Association on January 25, and "Hemoglobinuric Nephrosis" was discussed by **C. Laurence Johnson**, M.D., Kansas City.

Recently elected officers of the medical staff of St. Luke's Hospital, Kansas City, are **Richard H. Kiene**, M.D., president; **Druery Thorn**, M.D., president-elect; **Ernest L. Glasscock**, M.D., vice president, and **John H. Gaskins**, M.D., secretary.

"Tomorrow Is a Day," a mental health play of which **Sylvia Allen**, M.D., Kansas City, is a coauthor, was presented to the Delta Kappa Gamma on February 1.

"Medical Aspects of Civil Defense" was the subject of a talk presented before the Parent-Teachers Association of Lawrence, Kansas, by **Carroll P. Hungate**, M.D., Kansas City, on February 27.

The Hard of Hearing Society of Kansas City was addressed on February 4 by **Pat A. Barelli**, M.D., who spoke on "Recent Developments in Surgery for Relief of Middle Ear Deafness."

Speakers at the monthly meeting of the Kansas City Branch of the American Urological Association on February 22 were **Ronald W. Stitt**, M.D., and **Ira T. Smith**, M.D., The subject was "Renal Tuberculosis."

The St. Charles Community Council had as its speaker on February 16 **Carl E. Rice**, M.D., Hillsboro.

The Cole County Medical Society is sponsoring a bowling team composed of members of the Society and would like to meet with other society bowling teams in a handicap tournament during the 1957 Annual Session of the Missouri State Medical Association.

New assistant physician for the Frisco Railroad is **R. R. Donley**, M.D., Monett, it is announced by **Frank T. Kerr**, M.D., division physician.

Beginning July 1, 1956, Pat W. Luter, M.D., son of **Carter W. Luter**, M.D., Butler, will begin a residency on the surgical staff of the Ellis Fischel State Cancer Hospital, Columbia.

The Jewish Hospital of St. Louis held the Jack H. Tritt Memorial Lecture on March 29. It was presented by **Leon Schiff**, M.D., professor of clinical medicine of the University of Cincinnati School of Medicine. He spoke on "Pitfalls in the Etiologic Diagnosis of Jaundice."

Recently Mr. John C. Naylor, executive vice president of the Pet Milk Co., was named chairman of the St. Louis Committee of American Industry, a division of the National Fund for Medical Education which is directing a nationwide campaign to raise $10,000,000 for the eighty-one medical schools in this country. Mr. Naylor succeeds Mr. Joseph Fisters, president of the Mallinckrodt Chemical Works.

The Federation of Child Health Centers honored the following physicians on January 29 for their services at thirteen child health centers: Drs. **John Aull, Marvin Bordy, S. S. Cockerell, Milton Dodge, Mildred Duer, Charles P. Eldridge, G. E. Hughes, B. P. McDonald** and **James T. Van Biber**, all of Kansas City.

NEW MEMBERS

Brielmaier, Charles R., M.D., 307 S. Euclid Ave., St. Louis. St. Louis Medical Society.

Collins, Gretchen Dorris, M.D., Lake Park Drive, Macon. Chariton-Macon-Monroe-Randolph Counties.

Cullum, Albert G. J., M.D., 609 N. Grand Ave., St. Louis 3. St. Louis County.

Cunningham, James B., M.D., 600 S. Kingshighway, St. Louis. St. Louis Medical Society.

Feldaker, Mauri, M.D., 5463 Delmar, University City 5. St. Louis County.

Fisher, Harry E., Jr., M.D., 600 S. Kingshighway, St. Louis. St. Louis Medical Society.

Hall, David W., M.D., 70 Wayland Drive, Springfield. Greene County.

Kolze, Vernon W., M.D., Route 8, Box 180, Springfield. Greene County.

Maple, Francis M., M.D., 2013 S. Jefferson, Springfield. Greene County.

McAdoo, Hosea W., M.D., 705 Medical Arts Building, Springfield. Greene County.

Paris, William H., M.D., 9039 Wrenwood, St. Louis 17. St. Louis County.

Salmon, William D., Jr., 4960 Audubon Ave., St. Louis. St. Louis Medical Society.

MISS AILEEN PATTON RETIRES

After thirty-eight years of service with the St. Louis Medical Society, Miss Aileen M. Patton retired on February 1. On March 18, 1918, Miss Patton went to the Society from the office of the Missouri State Medical Association, the Society then being located at 3525 Pine Street, moving to its present location in 1926. Miss Patton has served under thirty-nine presidents of the Society and on February 9 the Past Presidents' Club had her as an honored guest at a dinner at the University Club. A book was presented containing letters from all the living presidents with whom Miss Patton had served. Also, a watch was presented to her in behalf of all those who were present. Miss Patton expects to divide her time between St. Louis and a farm at Fanning, Missouri.

MEDICAL SECRETARIES TO HOLD WORKSHOP

A Workshop will be presented by the Medical Secretaries and Assistants Society of Greater St. Louis on Sunday, May 6, in the Tiara Room of the Park Plaza Hotel. Registrations will begin at 9:00 a.m.; sessions will end at 5:00 p.m. A program is being planned to strengthen the doctor-assistant relationship and to help all medical office personnel to increase their efficiency, courtesy and knowledge of medical procedures and affairs.

Tickets, including luncheon, are $6.00. Reservations must be made not later than May 1. Tickets will be mailed upon receipt of check or money order. Miss Ruth Schwarz, 1402 South Grand Boulevard, St. Louis, is in charge of reservations. Information about the Workshop may also be had from Mrs. Margaret Scott, President, Room 504, University Club Building, St. Louis.

MEDICAL TECHNICIANS PLAN MEETING

The executive committee of the Missouri Society of Medical Technologists make final plans for the 9th annual meeting to be held at the Sheraton-Jefferson Hotel, St. Louis, April 8 through 11. Advisor to the groups is Hollis N. Allen, M.D., St. Louis (left); president-elect of the group (center) is Sister Ann Marie, R.S.M., St. John's Hospital School of Medical Technology, St. Louis; and program chairman, Miss Audrey Murphy, of the Clinical Pathological Laboratory, St. Louis.

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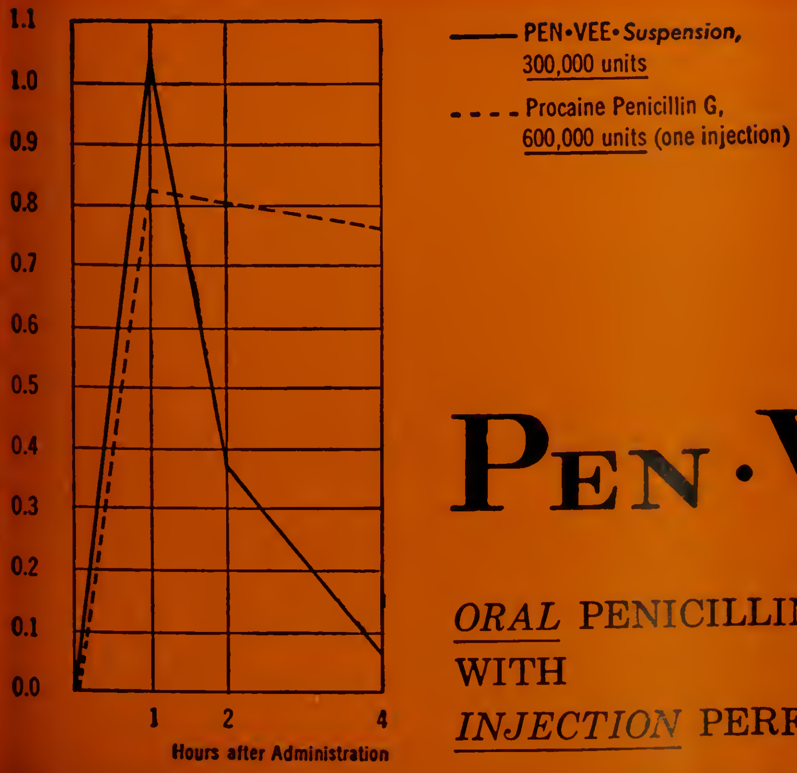

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[1] January, H. L. et al: Clinical experience with tetracycline. *Antibiotics Annual* 1954-55, p. 625.

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MISSOURI STATE MEDICAL ASSOCIATION

The 98th Annual Session of the Missouri State Medical Association will be held at the Sheraton-Jefferson Hotel, St. Louis, April 8, 9, 10 and 11, 1956.

TIME AND PLACE OF MEETINGS

Sunday, April 8

12:00 p. m. Registration for Delegates, Mezzanine Floor, Hotel Jefferson.
1:30 p. m. House of Delegates, Crystal Room, Hotel Jefferson.
3:30 p. m. Reference Committee, Rooms 2, 3, 4, 8.
7:00 p. m. Woman's Auxiliary Dinner and Entertainment, Hotel Statler.

Monday, April 9

8:00 a. m. Registration, Mezzanine Floor, Hotel Jefferson.
8:00 a. m. Motion pictures, Crystal Room.
9:00 a. m. Scientific Session, Crystal Room.
10:00 a. m. Intermission to View Exhibits.
10:30 a. m. Scientific Sections, Crystal and Gold Rooms.
12:00 noon Round Table Luncheon, Gold Room.
1:30 p. m. Motion pictures, Crystal Room.
2:00 p. m. Scientific Session, Crystal Room.
3:30 p. m. Intermission to View Exhibits.
4:00 p. m. House of Delegates, Crystal Room.
5:00 p. m. Reference Committees, 2nd Floor, Hotel Jefferson.
6:00 p. m. Committee on Maternal Welfare Dinner Meeting, Room 1.
Committee on Civil Defense Dinner Meeting, Room 9.
Missouri Society for Neurology and Psychiatry Dinner Meeting, Room 7.

Tuesday, April 10

8:00 a. m. Registration, Mezzanine Floor, Hotel Jefferson.
8:00 a. m. Motion pictures, Crystal Room.
9:00 a. m. Scientific Session, Crystal Room.
10:00 a. m. Intermission to View Exhibits.
10:30 a. m. Scientific Sections, Crystal and Gold Rooms.
12:00 noon Round Table Luncheon, Gold Room.
1:30 p. m. Motion pictures, Crystal Room.
2:00 p. m. Scientific Session, Crystal Room.
7:30 p. m. Annual Banquet, Gold Room. Dr. Elmer Ellis, President, University of Missouri, Speaker.

Wednesday, April 11

8:00 a. m. Registration, Mezzanine Floor, Hotel Jefferson.
8:00 a. m. Motion pictures, Crystal Room.
9:00 a. m. Scientific Session, Crystal Room.
10:00 a. m. Intermission to View Exhibits.
10:30 a. m. Scientific Session, Crystal Room.
1:30 p. m. House of Delegates, Crystal Room.

SCIENTIFIC PROGRAM

Monday, April 9, 1956, Crystal Room, Sheraton-Jefferson Hotel

VICTOR B. BUHLER, M.D., Kansas City, Presiding

8:00 a. m. Motion pictures.

9:00 a. m. Acute Arthritis: Problems in Diagnosis and Management, J. H. Killough, M.D., Columbia.

The differential diagnosis of the acute attack of arthritis is at the same time both difficult and urgent. The difficulty frequently lies in not bearing in mind the possibility of certain entities and the awareness of their clinical characteristics in the earliest stages. Urgency is demanded so that one not lose the opportunity to initiate therapy for the prevention of irreversible damage. This discussion will bring forth some of the problems in the diagnosis and management of early gouty arthritis and atypical

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gonococcal arthritis as well as their distinction from collagen disorders with similar symptomatology.

9:20 a. m. Discussion: John I. Matthews, M.D., Jefferson City.

9:30 a. m. Strengthening the Nutritional Processes During Aging, Tom D. Spies, M.D., Birmingham, Alabama.

10:00 a. m. Intermission to View Exhibits.

10:30 a. m. Symposium on Surgery (Crystal Room).
Eugene M. Bricker, M.D., St. Louis, Presiding

Management of Severe Metabolic Deficits in the Surgical Patient, William D. Holden, M.D., Cleveland, Ohio.

The Rationale of Radical Mastectomy in the Treatment of Carcinoma of the Breast, John J. Modlin, M.D., Columbia.

The status of the conventional radical mastectomy in the treatment of cancer of the breast recently has been challenged by some authorities, among them McWhirter, Wangensteen and Urban. Among dissatisfactions are the realization that between 25 and 40 per cent of all breast cancer patients have lesions which are so far advanced when first examined that they are beyond hope of permanent cure; current discussion of extended operations designed to treat metastases involving the supraclavicular and internal mammary lymph node groups, and the publications of McWhirter, in which simple mastectomy and treatment of the auxiliary lymph node metastases by means of irradiation has been recommended. This presentation will offer support to the concept that the conventional radical mastectomy should still be considered and most effective and the most practical means of bringing about permanent control of breast cancer at the present time. The records of all primary previously untreated cases of cancer of the female breast examined at the Ellis Fischel Cancer Hospital in 1947, 1948 and 1949 have been reviewed.

Advances in the Surgical Treatment of Diseases of the Left Colon, Richard A. Twyman, M.D., Kansas City.

This survey intends to review the advances made in diseases due to:

A. Congenital defects. Particular attention will be applied to the surgical treatment of Hirschprung's disease, with reference to personal surgical cases.

B. Neoplasm. Present attitude toward carcinoma of the left colon, above, at and below the peritoneal reflection—in the obstructed, partially obstructed and non obstructed cases.

C. Diverticulitis. A brief review of the complications of diverticulosis, and the surgical treatment most applicable to each. Reference also to the difficulty in diagnosis between diverticulitis and carcinoma.

10:30 a. m. Symposium on Pediatrics (Gold Room).
Daniel B. Landau, M.D., Hannibal, Presiding

Kidney Disease in Children, Henry L. Barnett, M.D., New York.

The major types of medical kidney disease in children will be described in terms of a clinical classification with emphasis upon prognosis. Nephrosis in children will be described as a distinct disease entity of unknown etiology and characterized by the occurrence of edema associated with proteinuria, a decrease in concentration of certain plasma proteins and elevation of serum lipids. It is not preceded by any evidence of acute glomerulonephritis; it may or may not be accompanied by transient or persistent hematuria, hypertension or reduced kidney function and it may result in complete recovery or in death from renal insufficiency.

Present knowledge concerning the cause of the major physiologic and biochemical alterations will be discussed. Emphasis will be placed upon the causes of proteinuria, edema and hyperlipemia.

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The natural history of nephrosis will be described with emphasis upon prognosis. The discussion of treatment will center about general measures in the care of children with nephrosis and the present status of the use of adrenal steroids in this disease. Finally, the effect of the disease on the children and their families will be discussed.

Surgical Diseases of the Urethra and Bladder in Children, Grayson Carroll, M.D., St. Louis.

Diagnosis of the Noncyanotic Newborn Child With a Heart Murmur, Clark W. Seely, M.D., Kansas City.

When a cardiac murmur is detected in a noncyanotic newborn infant, the first step is to decide if it be functional or organic. If it is considered organic but the infant is asymptomatic and has normal heart size, it is justifiable to simply talk the problem over with the patients and delay further diagnostic procedures. However, if symptoms of dyspnea, cardiomegaly, poor weight gain, hepatomegaly or cardiac decompensation are present, haste must be made to rule in or out malignant ductus arteriosis, interventricular septal defect and coarctation of the aorta. The infant may thus be saved by surgical intervention.

12:00 noon Round Table Luncheon. Gold Room.
Carroll P. Hungate, M.D., Kansas City, Presiding

SCIENTIFIC SESSION

BYRON M. STUART, M.D., Boonville, Presiding

1:30 p. m. Motion pictures.

2:00 p. m. Victories or Victims: A Critique of Advances in Anemia, Claude-Starr Wright, M.D., Augusta, Georgia.

Many of the current practices in treating the anemic patient have been established not by the sound medical practitioner but by the expedient Madison Avenue advertising pitchman. He has taken advantage of (1) the prevalence of anemia and (2) the time pressed practitioner. The results: we, the practitioners, and the patient are frequently victimized.

The "blunderbuss" multi-vitamin and multi-hematinic preparations may not only obscure the diagnosis but actually may be harmful to the patient. These evils are discussed.

The alert physician will first determine the mechanism of the anemia and then apply the specific measures as required.

2:30 p. m. Surgical Management of Some of the Common Skin Lesions Involving the Head and Neck, James F. Dowd, M.D., St. Louis.

2:50 p. m. Discussion: Frederick J. McCoy, M.D., Kansas City.
Minot P. Fryer, M.D., St. Louis.

3:00 p. m. The Diagnosis of Aural Vertigo, James B. Costen, M.D., St Louis.

3:20 p. m. Discussion: E. L. Spence, M.D., Kennett.
Claude R. Bruner, M.D., Columbia.

3:30 p. m. Intermission to View Exhibits.

4:00 p. m. House of Delegates.

Tuesday, April 10, 1956, Crystal Room, Sheraton-Jefferson Hotel

PETER V. SIEGEL, M.D., Smithton, Presiding

8:00 a. m. Motion pictures.

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9:00 a. m. Treatment of Status Asthmaticus, Stanley Hampton, M.D., St. Louis.

The emergency treatment of status asthmaticus or severe asthma should be directed so as to accomplish the following: (1) relief of bronchospasm, (2) relief of bronchial edema, (3) eradication of infection of the respiratory tract, if present, (4) maintenance of blood oxygen saturation, and (5) removal of tenacious sputum and bronchial mucous plugs.

Bronchospasm usually responds to the bronchodilators, epinephrine, isopropyearterenal and aminophyllin, administered by various means.

Allergic edema of the bronchial mucosa may respond to the same drugs used for bronchospasm and usually responds dramatically to Corticotropin (ACTH) parenterally or the steriods Cortisone, hydrocortisone, prednisone or predniselone parenterally or orally. Prolonged intravenous administration of corticotropin remains the best of such treatment although the therapeutic effect of prednisone and predniselone approaches that of intravenous ACTH.

Respiratory infection may be controlled with sulfonamides or antibiotics such as penicillin, streptomycin, tetracycline, chlortetracycline, oxytetracycline, chloromphenical or erythromycin.

Oxygen saturation may be maintained usually with oxygen (given with caution to avoid the increase of an existing Co_2 narcosis), particularly when given by intermittent positive pressure, provided the bronchial tree is not too extensively obstructed by mucous plugs.

The removal of tenacious sputum and bronchial mucous plugs is the most important therapeutic measure in the treatment of status asthmaticus. It has been shown and universally accepted that death from asthma is due chiefly to asphyxia or anoxia because of extensive bronchial mucus. Those therapeutic measures enumerated above for bronchospasm and bronchial edema, in turn, may promote expectoration of such mucus. The use of therapeutic agents and equipment, however, with a primary action for this purpose is mandatory as a life saving measure in status asthmaticus. Expectorant drugs such as potassium iodide, lobelia, ammonium chloride and glycerrhizza orally and particularly sodium iodide intravenously are substantial therapeutic agents. Detergents such as Alevaire and enzymes such as Trypsin (Tryptar) and desoxyribonuclease (pancreatic dornase) by inhalation are newer agents used as sputum solvents. The enzymes must be used with caution, however.

The use of intermittent positive pressure breathing (IPPB) of oxygen, such as can be accomplished with the Bennett respirator, particularly when combined with bronchodilators, detergents and enzymes in the nebulizer of the positive pressure system offers the most modern method of liquefying and thereby removing bronchial secretions and mucous plugs.

Bronchoscopy and aspiration following the use of sputum solvents may be indicated in selected cases.

Whereas the etiologic agent in status asthmaticus is usually infection, extrinsic allergens to which the patient may be sensitive should be respected while such treatment as herein described is being instituted.

The rationale and detailed technic of the various factors in the treatment of status asthmaticus will be discussed.

9:20 a. m. Discussion: Clement J. Sullivan, M.D., St. Louis.

9:30 a. m. The Adequacy of Medical Education, Melvin A. Casberg, M.D., Solvang, Calif.

During the first half of this century medical science has achieved unprecedented gains. In the backwash of this turbulence of scientific progress medical education in her effort to keep abreast of the times finds herself in the throes of a revolution. Medical educators are attempting to reevaluate objectives in the light of this phenomenal progress. The question of the adequacy of medical education is one demanding serious thought on the part of all physicians.

The major problems facing medical education include, not necessarily in their order of importance, such issues as: a balancing of the premedical curriculum; correlation of the undergraduate curriculum; the realization that the social sciences as well as the biological sciences are integral parts of medicine; the medical consideration of the total man in his total environ-

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ment; the inadequacy of the faculty salary schedule; the cost of medical education; the impact of research on medical education; the possibility of the overproduction of specialty personnel; the relationship of the clinical clerk, the intern and the resident in the teaching hospital; and the need for overall organization of the postgraduate medical program.

In the solution of these problems lies the future of medical education. No single segment of American medicine can solve these problems alone for all physicians either directly or indirectly bear a share of responsibility for the adequacy of medical education.

10:00 a. m. Intermission to View Exhibits.

10:30 a. m. Symposium on Medicine (Crystal Room).
Roy W. Pearse, M.D., Nevada, Presiding

Treatment of Patients With Coronary Atherosclerosis, E. Sterling Nichol, M.D., Miami, Florida.

Indications for Mitral Valvulotomy, John J. Hammond, M.D., St. Louis.

The last seven years have seen the evolution of the modern surgical attack on the stenosed mitral valve, known as mitral commissurotomy. As a consequence of the experience with the many cases that have been subjected to this procedure certain indications and contra-indications for its performance have become generally recognized.

The presentation attempts to give the current ideas on the proper selection of patients for surgical correction of mitral stenosis.

Congenital Heart Disease in Adult Persons, Martin J. Mueller, M.D., Kansas City.

10:30 a. m. Symposium on Obstetrics (Gold Room).
Joseph L. Johnston, M.D., Springfield, Presiding

Functional Uterine Bleeding, Leonard H. Biskind, M.D., Cleveland, Ohio.

It has been demonstrated repeatedly in experimental animals that the liver is the site of inactivation of estrogens and androgens and there is abundant evidence that these steroids are similarly metabolized in the human liver. The ability of the liver to metabolize estrogen is controlled by certain factors, among which is the intake of adequate vitamin B complex. Inactivation of androgen in the liver proceeds without significant impairment even during deficiency of vitamin B complex. Thus, it appears that the estrogen-androgen equilibrium in the body is maintained by a normally functioning liver, and that the equilibrium can be altered by nutritional deficiencies which impair the ability of the liver to destroy estrogen. In females, the estrogen thus retained produces premenstrual tension, retention of body water, mastalgia, menometrorrhagia (functional uterine bleeding), chronic cystic mastitis and uterine myomas; following pregnancy, there is impaired involution of the uterus. In males, this syndrome leads to testicular atrophy, diminution of libido and potency, infertility and gynecomastia.

All these functional conditions respond readily to intensive and complete nutritional therapy; the organic changes likewise respond, although more slowly, and often less completely. Nutritional deficiency with the concomitant accumulation of excess estrogen and the consequent prolonged stimulation of tissues of the uterus and breast, may lead to the development of precancerous hyperplasias and ultimately, in certain cases, to definite malignancy. For the last fifteen years, we have been able to demonstrate in several large series of patients that the clinical signs and symptoms related to excess estrogen can be completely controlled by a therapeutic program that employs an adequate dosage of all the known and unknown factors of the vitamin B complex together with a high protein-low carbohydrate diet. The maintenance of such a therapeutic regime insures complete symptomatic relief which results from the restoration in most instances of the physiologic steroid balance in the body.

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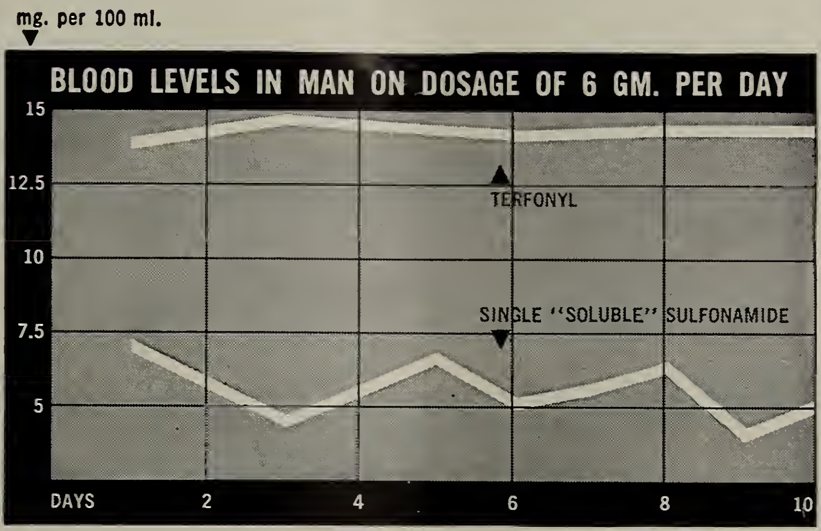

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Bleeding Based Upon Unrecognized Pregnancy, Samuel A. Montello, M.D., Kansas City.

Menstrual aberrations do produce patterns that lead to the suspicion of an early pregnancy. Bleeding is interpreted with reference to relationships between the ovary, uterus and trophoblast. Decidual viability is dependent on hormonal and nutritional balance. Placentation of the early trophoblast may produce bleeding dependent on the mechanics of establishing a vascular bed.

Maternal Welfare Report, Joseph M. Krebs, M.D., St. Louis.

For the last several years, all maternal deaths occurring throughout the state have been reviewed by committees of the St. Louis and the Kansas City Gynecological Societies. Reduction of maternal mortality rates depends upon eradication of those deaths deemed to be preventable. The findings of these two committees for the period November 1, 1954, through October 31, 1955, will be summarized.

Radiation Management of Cancer of the Cervix and Fundus Uteri, Edwin C. Ernst, M.D., St. Louis.

12:00 noon Round Table Luncheon. Gold Room.
M. Pinson Neal, M.D., Columbia, Presiding

SCIENTIFIC SESSION

D. I. L. SEABAUGH, M.D., Cape Girardeau, Presiding

1:30 p. m. Motion pictures.

2:00 p. m. Epidural Hematoma as a Sequel to Head Injury: Several Variations on the Usual Course, Samuel P. W. Black, M.D., Columbia.

An injury to the head may cause bleeding into the space between the skull and the dura mater. The classical sequence of events presented by the patient with an epidural hematoma is that of head injury with cerebral concussion followed, for a few hours, by a lucid interval which then gives way to increasing drowsiness, contralateral hemiparesis, dilated pupil on the homolateral side and changes in the vital signs. There are several variations on this classical course, such, for example, as venous rather than arterial space in patients of various ages.

A high degree of suspicion that epidural bleeding may be present following head injury will be reflected in a lower mortality rate. The surgical problem presented by these patients is a formidable and exacting one which involves not only evacuation of clotted blood from, and hemastasis in, the epidural space but entails also a knowing management of the injured brain.

2:20 p. m. Discussion: Edmund A. Smolik, M.D., St. Louis.
Leonard T. Furlow, M.D., St. Louis.

2:30 p. m. Diagnosis of the Solitary Lung Lesion, Paul Maddux, M.D., Springfield.

Interest in the solitary lung lesions has been stimulated by the relatively large numbers of such cases being discovered by the mass x-ray surveys. Such surveys have only been extensively used during the last fifteen years. A large majority of these cases are asymptomatic.

The term "coin lesion" was introduced in 1948 by O'Brien. This term now has come to mean a specific type of lesion. In this presentation the cases will not necessarily conform to the current criteria set up for the "coin lesion."

Etiologic factors of the various lesions are divided into extrapulmonary and intrapulmonary types. Chief among the latter are the vascular lesions, tumors and the infectious—both granulomatous and nongranulomatous. Symptoms and physical findings are usually mild or entirely lacking.

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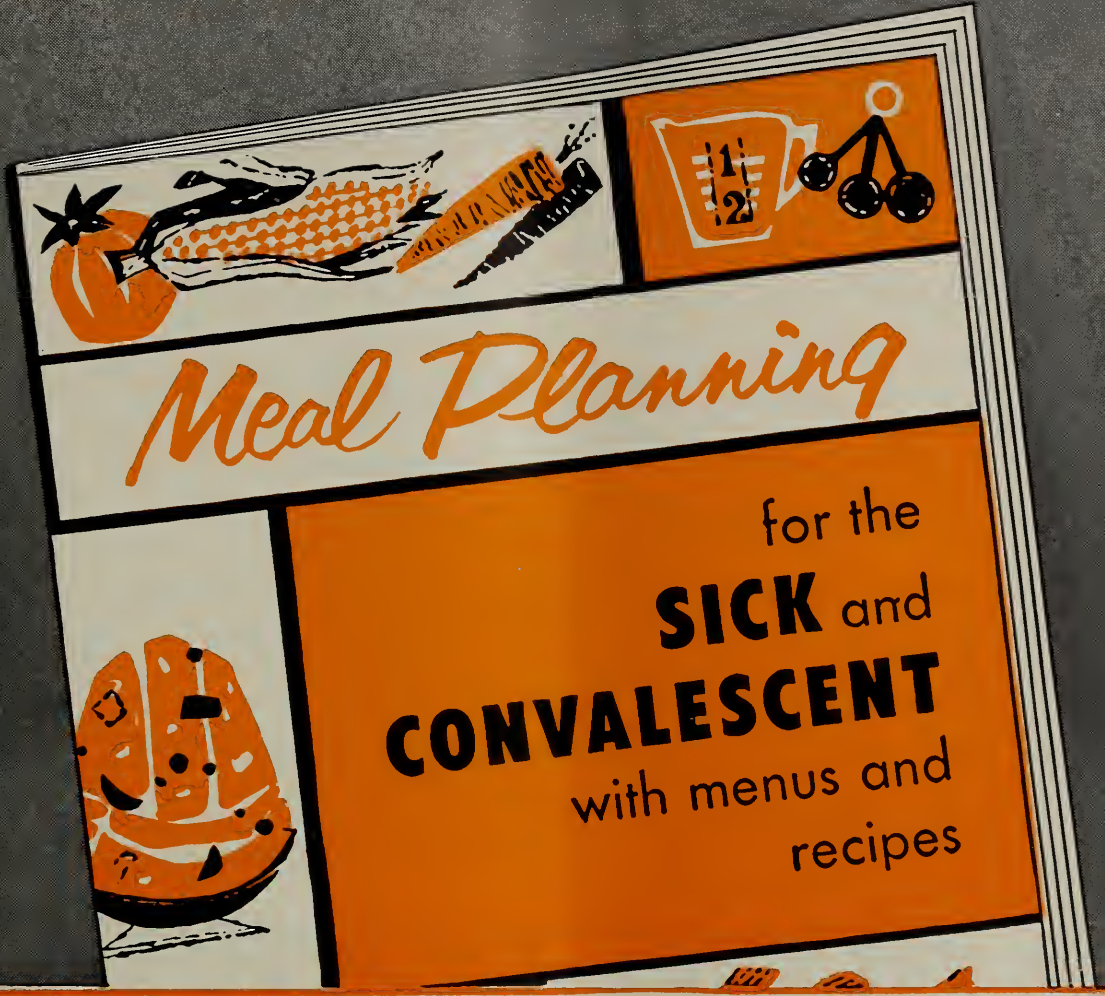

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The diagnosis usually requires all of the usual clinical laboratory methods—bacteriologic, cytologic and radiologic. These often prove fruitless and biopsy must be done. The latter may include specimens obtained from cervical glands, through the bronchoscope or by exploratory thoracotomy. The latter offers the most accurate and direct method of diagnosis. The importance of making a diagnosis justifies the latter procedure.

2:50 p. m. Discussion: C. M. Waggoner, M.D., Columbia.
Paul Murphy, M.D., St. Louis.

3:00 p. m. Renal Vicissitudes, T. Leon Howard, M.D., Denver.

3:30 p. m. Intermission to View Exhibits.
4:00 p. m. Panel: Acute Surgical Emergencies.
CARL F. VOHS, M.D., St. Louis, Presiding

Emergency Care of Chest Injuries, John R. McDaniel, M.D., St. Joseph.

Due to the increasing incidence of severe chest injury, every practicing physician should have a knowledge of the principles and procedures involved in the emergency care of chest wounds. In this paper are presented diagnostic and therapeutic measures which can be used in a smaller hospital in the early management of thoracic wounds.

Bleeding Ulcer or Upper Gastrointestinal Hemorrhage, John A. Growdon, M.D., Kansas City.

Obstetric and Gynecologic Emergencies, George Wulff, M.D., St. Louis.

Acute Traumatic Abdominal Injury, Virgil E. Jeans, M.D., Joplin.

Question and Answer Period.

7:30 p. m. Annual Banquet in Honor of Past Presidents. Victor B. Buhler, M.D., Kansas City, presiding.

What the University of Missouri Medical School Should Mean to the State, Dr. Elmer Ellis, President, University of Missouri, Columbia.

Wednesday, April 11, 1956, Crystal Room, Sheraton-Jefferson Hotel

CHARLES E. MARTIN, M.D., St. Louis, Presiding

8:00 a. m. Motion pictures.

9:00 a. m. The Diagnosis of Congenital Anomalies of the Hip in the Newborn Child, Henry R. McCarroll, M.D., St. Louis.

Two types of congenital anomalies are not infrequently encountered in early childhood, and the diagnosis of each often can be made at the time of birth if the positive physical findings are understood and searched for. The two anomalies are: The dysplastic hip which consists of an inadequate acetabulum and subsequent upper displacement of the head of the femur; and, secondly, a true congenital dislocation of the hip. The significant physical signs in each will be discussed. The treatment in each type of involvement will also be outlined briefly.

9:20 a. m. Discussion: Daniel L. Yancey, M.D., Springfield.

9:30 a. m. Advances in Surgery of the Pancreas, Herbert C. Lee, M.D., Richmond, Virginia.

Few organs resist surgical treatment as well as does the pancreas. Results of surgery in pancreatic lesions are not too successful because, as yet, the cause of pancreatitis is not known and there is no way of diagnosing malignant tumors until late in the course of the disease. From the experience gained in treating more than 700 cases of acute and chronic pancreatitis a routine method of therapy has been devised which gives a large measure of success. Acute pancreatitis will either be fatal, will form cysts or will develop into a chronic form which is particularly hard to treat. Results of treatment are presented. From experience, chronic pancreatitis is

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either relieved by one or two relatively simple operations, or else is not relieved after multiple procedures.

Pancreatico-duodenectomy is still the treatment of choice for carcinoma of the ampulla, head of the pancreas, duodenum and common duct. Experiences with the procedure are presented. It is a good operation for duodenal or ampullary carcinomas, has limited use in carcinomas of the common duct and is of little value in carcinoma of the head of the pancreas.

Surgery also has a place in the treatment of annular pancreas, pancreatic heterotopia and islet cell tumors of the pancreas, but the relative rarity of the conditions precludes more than mere mention in this report on surgery of the pancreas.

10:00 a. m. Intermission to View Exhibits.

10:30 a. m. Panel: What's New in Medicine.
Allen I. Herman, M.D., St. Joseph, Presiding

Gastroenterology Progress, Charles F. Wilson, M.D., Cape Girardeau.

The discussion will include: (1) Effect of adrenal cortical hormones on gastric secretory function. (2) Use of serum and urinary pepsinogen studies as an aid in estimating gastric function. (3) Thorazine hepatitis. (4) Relation of ammonia metabolism to hepatic coma. (5) Evidence that a factor contained in wheat and gluten is a causative agent in celiac syndrome and certain cases of sprue. (6) Treatment of hepatitis and ulcerative colitis with adrenal cortical hormones.

Chemotherapy of Leukemia, R. O. Muether, M.D., St. Louis.

Current Concepts in the Use of Antibiotics, Llewellyn Sale, Jr., M.D., St. Louis.

Antibiotic and chemotherapeutic agents have assumed a major role in the everyday practice of clinical medicine. They are among the most useful but, at times, most harmful substances the physician prescribes. A great volume of clinical and laboratory research has been done and continues to be done throughout the medical world. The amount of literature on the subject is enormous and many times encouraging results are unsupported by controlled experiments. It is the duty of each physician to be familiar with the recent developments in this field as well as the inherent pitfalls and failures that are now recognized.

New Drugs in the Treatment of the Nervous Patient, Thomas Thale, M.D., St. Louis.

Arthritis in Relation to the New Cortisone Preparations, Jack Zuckner, M.D., St. Louis.

The advent of the newer steroids is a further stride in the therapy of rheumatic diseases. Prednisone and prednisolone, two of the more important discoveries, are rapidly replacing their analogues, cortisone and hydrocortisone. Both are alike in laboratory and clinical effects and are equally superior to cortisone and hydrocortisone in antirheumatic and anti-inflammatory response. In addition, the markedly reduced mineralo-corticoid action of these newer corticoids assures them a more prominent place in the management of arthritic patients since it is possible to administer these agents in dosages sufficient to suppress symptoms without causing sodium retention or excessive potassium excretion. In actual practice, therefore, patients receiving usual therapeutic doses may be on full diets without salt restriction or potassium supplementation. It must not be assumed, however, that the basic problems in management of these diseases are solved. Undesirable physiologic effects other than electrolyte disturbances occur with prednisone and prednisolone as with the older steroids, and probably with the same frequency and severity. Caution in choice of patients, careful observation on the use of minimal effective doses are still necessary. These hormones are advances in therapy, but are still not a cure. It is hoped that other alterations in the structural composition of steroids will result in antirheumatic agents with additional beneficial effects.

Precautions in the Use of Hypertensive Agents, Robert Paine, M.D., St. Louis.

1:30 p. m. House of Delegates.

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COMMITTEE ON MATERNAL WELFARE

DINNER MEETING

Monday, April 9, 1956, 6:00 p.m.

Room 1, Sheraton-Jefferson Hotel, St. Louis

JOSEPH L. JOHNSTON, M.D., Springfield, Presiding

"Maternal Mortality Case Reports."

COMMITTEE ON CIVIL DEFENSE

DINNER MEETING

Monday, April 9, 1956, 6:00 p. m.

Room 9, Sheraton-Jefferson Hotel, St. Louis

CARROLL P. HUNGATE, M.D., Kansas City, and JAMES R. AMOS, M.D., Jefferson City, Presiding

7:30 p. m. Progress Report of the Activities of the Missouri Civil Defense Agency, Mr. Marvin Smith, Director, Missouri Civil Defense Agency, Jefferson City.
7:45 p. m. Progress Report, Medical Health Division, H. M. Hardwicke, M.D., Coordinator, Medical Civil Defense, Missouri Division of Health, Jefferson City.
8:00 p. m. Radiological Monitoring Program, Dr. Newell S. Gingrich, Professor of Physics, University of Missouri, Columbia.
8:20 p. m. Genetics Effects of Ionizing Radiation, Dr. Frank P. Hungate, Biology Section, Hanford Atomic Project Operation, General Electric Company, Richland, Washington.
9:00 p. m. Panel Discussion: Medical Civil Defense Problems, Their Cause and Solution, W. C. Allen, M.D., Glasgow; James Mayfield, M.D., Washington; Ralph E. Duncan, M.D., Kansas City.
9:40 p. m. Hospital Disaster Planning and the Evacuation of Patients: Lecture and Motion Picture, Curtis H. Lohr, M.D., Director, St. Louis County Hospital, Clayton.

MISSOURI PHYSICAL THERAPY ASSOCIATION, INC.

CONFERENCE

Sheraton-Jefferson Hotel, St. Louis, April 8, 9, 1956

Sunday, April 8

1:00 p. m. Registration, Hotel Sheraton-Jefferson. Room 9.
1:30 p. m. Business Meeting.
5:00 p. m. Banquet.

Monday, April 9

9:00 a. m. Clinical Application of Electromyography, Deago Matteralla, M.D., Chief of Physical Medicine, VA Hospital.
9:45 a. m. A Functional Method of Administering Precrutch Walking Progressive Exercises, Robert Hickok, Physical Therapist.
10:15 a. m. View Exhibits.
10:30 a. m. Neurological and Psychiatric Aspects of Physical Rehabilitation Problems, Robert Lam, M.D.
11:45 a. m. Lunch.
1:30 p. m. Rehabilitation and Management of the Flail Hand, John Deyton, M.D., Medical Director of the Miriam Rehabilitation Division of Jewish Hospital.
2:15 p. m. Ultra-Sound: A Modern Therapy, Sister M. Alcuin, R.S.M., Chief Physical Therapist, St. John's Hospital.
2:45 p. m. View Exhibits.
3:15 p. m. Discussion of Pathology Involving the Shoulder Girdle With Conservative Operative and Rehabilitation Technics of Treatment, Leon Fix, M.D.
4:00 p. m. Diagonal Exercise Patterns, Sister M. Joanette, O.S.S., Chief Physical Therapist, St. Anthony's Hospital.
4:30 p. m. Adjournment.

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Methscopolamine bromide .... 2.5 mg.

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One tablet one-half hour before meals, and 1 to 2 tablets at bedtime.

Supplied: Bottles of 100 and 500 tablets

Syrup

Each 5 cc. (approx. 1 tsp.) contains:
Methscopolamine bromide .... 1.25 mg.

Dosage:
1 to 2 teaspoonfuls three or four times daily.

Supplied: Bottles of 4 fluidounces

Sterile Solution

Each cc. contains:
Methscopolamine bromide .... 1 mg.

Dosage:
0.25 to 1.0 mg. (¼ to 1 cc.), at intervals of 6 to 8 hours, subcutaneously or intramuscularly.

Supplied: Vials of 1 cc.

*TRADEMARK, REG. U. S. PAT. OFF.—THE UPJOHN BRAND OF METHSCOPOLAMINE

The Upjohn Company, Kalamazoo, Michigan

Councilor District News

FIRST COUNCILOR DISTRICT

DONALD M. DOWELL, CHILLICOTHE, COUNCILOR

Grand River Medical Society

The Grand River Medical Society met February 9, 1956, at the Strand Hotel in Chillicothe. In the absence of the president, Dr. John R. Dixon, first Vice President Dr. Frank R. Daley presided. There were twenty-seven members, sixteen Auxiliary members and five or six visitors present. After a fine dinner, the guests were introduced and the Woman's Auxiliary retired to their program.

The scientific program was presented by Dr. Robert L. Jackson, Professor and Chairman of the Department of Pediatrics, University of Missouri School of Medicine, Columbia, who spoke on "The Diabetic Child." He was introduced by Dr. John Martin, Chairman of the Program Committee. This was a fine presentation of an interesting subject and was followed by questions and discussion.

Dr. Roy R. Haley, a member of the Society, who has practiced at Brookfield for thirty-six years, has retired and moved to San Diego, Calif.

Delegates and alternates were elected to represent the society at the April 8 to 11, 1956 meeting of the State Medical Association in St. Louis.

The minutes of the last meeting were read and approved. There being no further business the Society adjourned.

E. A. Duffy, M.D., *Secretary*

SECOND COUNCILOR DISTRICT

W. F. FRANCKA, HANNIBAL, COUNCILOR

Chariton-Macon-Monroe-Randolph County Medical Society

Members of the Chariton-Macon-Monroe-Randolph County Medical Society held their monthly dinner meeting Thursday night, February 9, at the Woodland Hospital, Moberly.

Dr. Thomas S. Fleming, Moberly, spoke on "Basic Physiological Studies Pertaining to the Interpretation of Electrocardiograms in Coronary Infarction."

Dr. Fleming emphasized in the course of his discussion that proper interpretation of the electrocardiogram in disease of the heart muscle and its nutrient vessels is highly dependent on a sound understanding of the electrical, chemical and physical changes which occur when heart muscle undergoes injury and subsequent repair.

The following members were present: Drs. F. A. Barnett, Paris; James E. Campbell, D. E. Eggleston and Howard S. Miller, Macon; F. L. Harms and G. W. Hawkins, Salisbury; C. C. Weger, Keytesville; P. V. Dreyer, Huntsville; and Josephine D. Baker, W. D. Chute, C. C. Cohrs, J. Will Fleming, Thomas S. Fleming, Robert Hasson, L. E. Huber, Avery P. Rowlette, C. C. Smith, Stanley R. Szymanski and Robert H. Young, Moberly.

Robert H. Young, M.D., *Secretary*

FOURTH COUNCILOR DISTRICT

JOSEPH C. CREECH, TROY, COUNCILOR

Jefferson County Medical Society

The Jefferson County Medical Society held a called meeting in the office of Dr. Charles Fallet in De Soto on February 6. Dr. Senn, president, presided. Other members present were: Drs. Thomas Donnell, Charles Fallet, Karl McKinstry, Carl Rice and John F. Rutledge.

The scientific program was presented by Dr. Warren Lonergan of the Department of Gastro-Enterology of Washington University Medical School, who spoke on "Functional Disorders of the Gastro-Intestinal Tract." His talk was illustrated with appropriate films and was well received.

There was further discussion of the Jefferson County Blood Program, especially as to means of ensuring the presence of a physician with the blood mobile.

Following the meeting, the doctors and their wives gathered at the house of Dr. Thomas A. Donnell for a social hour.

John F. Rutledge, M.D., *Secretary*

Lincoln-St. Charles County Medical Society

James C. Sisk, M.D., St. Louis, spoke on "Common Skin Diseases and What-to-put-on Them" at a dinner meeting of the Lincoln-St. Charles County Medical Society at the Southern Air, Wentzville, Thursday night, February 2.

The evening festivities began with a social hour followed by dinner and then the scientific program, which was under the auspices of the Missouri Academy of General Practice.

The group discussed problems informally.

A number of business matters were discussed including ways and means of promoting the proposed county health unit for St. Charles County and a polio vaccination program.

Society officers were elected for 1956 as follows: President, Dr. George E. Kister, St. Charles; Secretary-Treasurer, Dr. W. H. Poggemeier, St. Charles; Delegate in Lincoln County, Dr. Louis P. Hetlage, Troy, and Dr. Edward O. Damron, Elsberry, alter-

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MULTIPLE COMPRESSED TABLETS

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The meeting broke up slowly.

nate; Delegate for St. Charles County, Dr. George E. Kister, St. Charles, and Dr. W. H. Poggemeier, alternate.

The attendance at the meeting numbered sixteen.

W. H. POGGEMEIER, M.D., *Secretary*

FIFTH COUNCILOR DISTRICT

J. LOREN WASHBURN, VERSAILLES, COUNCILOR

Audrain County Medical Society

The Audrain County Medical Society held their regular monthly meeting on February 9 in the cafeteria of the Audrain County Hospital at 7:30 p.m. The meeting was called to order by the president, Dr. Glen P. Kallenbach. The minutes and treasurer's report of the previous meeting were read and approved. There was no new business to be discussed.

Dr. Ernest S. Gantt introduced Dr. William R. Platt who conducted a C.P.C. Dr. Kallenbach introduced Mr. Arthur Flynn, Field Claim Supervisor of the Metropolitan Life Insurance Company, who spoke on "Abuses of Group Insurance."

The following doctors were present: Drs. Leonard L. Davis, Thomas L. Dwyer, Henry J. Ector, Ernest S. Gantt, Charles L. Garcia, Benjamin N. Jolly, William H. Jolly, Glen P. Kallenbach, Harold K. Lankford, Harry F. O'Brien and Ed S. Wallace.

As there was no further business, the meeting adjourned at 10:00 p.m.

ED S. WALLACE, M.D., *Secretary*

Postgraduate Course at Missouri University

The third Postgraduate Session in this year's winter series of six was held at the University of Missouri on Thursday night, February 23.

These postgraduate meetings are under joint sponsorship of the Missouri Academy of General Practice and the Medical School at the University of Missouri.

The program was as follows: Dr. Walter R. Hepner, Jr., Associate Professor of Pediatrics, spoke on "Management of Diarrhea and Vomiting," and Dr. John H. Killough, Associate Professor of Medicine, discussed "Management of Cardiorespiratory Emergencies."

Some 300 physicians in central Missouri receive individual notifications of these postgraduate programs and thereby have an opportunity of attending these interesting and informative sessions.

This series of meetings is presided over by Dr. T. L. Dwyer, Mexico, who is president of the Missouri Academy of General Practice. The next three sessions of the current series of meetings will be held on March 22, April 26 and May 17, all in McAlester Hall, beginning at 8:00 p.m. on the nights indicated.

J. LOREN WASHBURN, M.D., *Secretary*

SIXTH COUNCILOR DISTRICT

C. G. STAUFFACHER, SEDALIA, COUNCILOR

West Central Missouri Medical Society

A dinner meeting of the West Central Missouri Medical Society and its Woman's Auxiliary was held in Nevada on Thursday night, February 9. A social hour preceded the dinner and the program followed.

Dr. Robert F. Wortmann, Kansas City, was the speaker on the evening's program. He was sponsored by the Missouri Academy of General Practice and used as his subject "Office Gynecology."

Twenty-five doctors and a good number of Auxiliary members were present to enjoy this occasion.

L. P. MCCANN, M.D., *Secretary*

NINTH COUNCILOR DISTRICT

J. H. SUMMERS, LEBANON, COUNCILOR

South Central Counties Medical Society

The South Central Counties Medical Society met for dinner at the Arcade Hotel in West Plains, Wednesday night, February 8, with the following members and visitors present: Dr. and Mrs. C. W. Cooper, Thayer; Dr. and Mrs. S. W. Connor, Dr. and Mrs. R. W. Denney, and Dr. A. C. Ames, Mountain Grove; Dr. T. J. Burns, Houston; Dr. and Mrs. H. W. Miller and Dr. M. B. Perkins, Willow Springs; Dr. and Mrs. M. L. Fowler, Dr. and Mrs. C. F. Callihan, Dr. and Mrs. R. H. Smith and Dr. and Mrs. J. N. Wiles, West Plains, and Dr. and Mrs. Burnett, Jonesboro, Arkansas.

After dinner, the ladies went home with Mrs. Fowler for the evening and Dr. Wiles called the meeting to order and the minutes of the last meeting were read and approved; also, a financial statement was presented showing $140.21 on hand, January 1, 1956. Since that time nine members have paid 1956 dues and state dues have been remitted for seven of them and two members have not yet paid.

A social security bill that has passed the House of Representatives and is pending in the Senate was discussed and as it is not generally favored by physicians, it was deemed better that our members should each write to senators opposing it rather than to send them a resolution passed by the society.

Dr. Callihan brought up the question of a fee schedule, and the president appointed as a committee to prepare such a suggested schedule and report at a future meeting, Dr. Callihan as chairman, with Drs. Burns, Connor and Perkins.

The meeting was then turned over to Dr. Burnett who spoke on "Lesions of the Lumbar Spine," which proved interesting and instructive.

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The dose-response curve of Rauwiloid is flat, and its dosage is uncomplicated and easy to prescribe...merely two 2 mg. tablets at bedtime.

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[1] Cronheim, G., and Toekes, I. M.; Comparison of Sedative Properties of Single Alkaloids of Rauwolfia and Their Mixtures, Meet. Am. Soc. Pharmacol. & Exper. Therap., Iowa City, Iowa, Sept. 5, 1955.

[2] Moyer, J. H.; Dennis, E., and Ford, R.: Drug Therapy (Rauwolfia) of Hypertension. II. A Comparative Study of Different Extracts of Rauwolfia When Each Is Used Alone (Orally) for Therapy of Ambulatory Patients with Hypertension, A.M.A. Arch. Int. Med. *96*:530 (Oct.) 1955.

Riker
LOS ANGELES

Rauwiloid is the original alseroxylon fraction of India-grown Rauwolfia serpentina, Benth., a Riker research development.

The meeting adjourned to meet in Houston the last week of March.

A. C. Ames, M.D., *Secretary*

Mid-Missouri Medical Society

Thirty-five people, including doctors and their wives, attended a dinner meeting of the Mid-Missouri Medical Society at the Colonial Village, Rolla, Thursday night, February 23.

The president thanks the speaker.

An interesting and informative program was presented by Dr. Willard Bartlett, St. Louis, who discussed "The Non-Operative Management of Goiter."

While the doctors were participating in the scientific part of the program, the ladies were holding a separate meeting at the home of Mrs. Myers, president of the Society's Auxiliary.

Members remained at the table during the talk.

The scientific program was sponsored by the Missouri Academy of General Practice.

M. K. Underwood, M.D., *Secretary*

TENTH COUNCILOR DISTRICT

BEN M. BULL, IRONTON, COUNCILOR

Mineral Area County Medical Society

A meeting of the Mineral Area County Medical Society was held Thursday night, February 23, at the Clinic Building, State Hospital, Farmington.

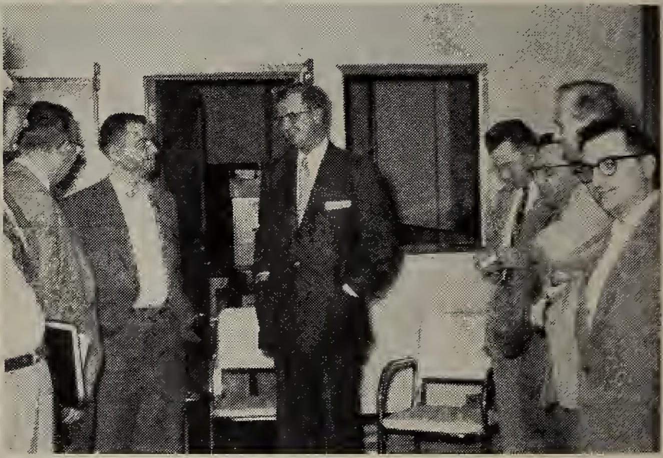
The program for the evening was furnished by the Missouri Academy of General Practice and presented M. Richard Carlin, M.D., St. Louis, who spoke on "Some Important Urological Problems in General Practice."

A. G. Karraker, M.D., *Secretary*

Perry County Medical Society

On Thursday night, February 16, the Perry County Medical Society and the Perry County Hospital Staff held a joint meeting at the hospital and invited Dr. Charles E. Martin, St. Louis, president-elect of the Missouri Academy of General Practice, to address them.

Dr. Martin discussed the activities and programs of the American Academy of General Practice and that of the Missouri Academy. Among others, Dr. Martin was asked a number of questions concerning the Academy's postgraduate education program and its physician-hospital relations program.



The speaker answered questions after the formal meeting.

In addition to other business matters, the Society discussed the possibility of sponsoring health education programs over the local radio stations.

Fourteen were in attendance at this meeting despite the heavy fog covering the entire area.

G. H. DeGenova, M.D., *Secretary*

Missouri Medicine in Review

(Continued from page 262)

unique in that it was the fiftieth anniversary of the graduation and each physician had been in practice for fifty years. Of the forty-one who were graduated seven are living and six of them were present at the banquet. The absent member was Dr. Henry Harnisch, of Flagstaff, Arizona. The members attending were Drs. James A. Dickson, Willis Hall, Harvey G. Mudd, Amand Ravold, Max C. Starkloff, of St. Louis, and William A. James, Chester, Illinois. When the rule that graduates of medical colleges must have taken a three-year course became compulsory the St. Louis Medical

College was the only school west of the Alleghenies having the three-year rule and only three eastern schools had similar requirements. The college was established in 1842 as the medical department of St. Louis University but severed this connection in 1855 and in 1891 became the Washington University School of Medicine.

A trap-shooting tournament has been offered as a feature of the entertainments at the Joplin session, May 11 to 14. Dr. J. W. Barson, 202 Sergeant Avenue, Joplin, is in charge of the plan.

An unusual opportunity is open to the members of the Missouri State Medical Association to make a fifty-eight day trip to Europe this summer in company with the members of other state medical associations at the low price of $895. This service gives the members first class accommodations on the *S. S. Montclare* of the Canadian Pacific Lines.

House Bill 403 has been passed. This increases the sum of money from $250 to $750 and the number of days during which this sum may be expended following an injury from sixty days to ninety days.

TEN YEARS AGO

Dr. H. B. Goodrich, Hannibal, spoke before the Rotary Club in Hannibal on medical care for the American people.

Dr. O. S. Pate, North Kansas City, has been appointed coroner of Clay County.

Dr. William J. Cremer, Nevada, has been appointed superintendent of State Hospital No. 1 at Fulton. He replaces Dr. C. C. Ault, Fulton, who has resigned to enter private practice in Little Rock, Arkansas.

Dr. J. A. Cline, Oran's only practicing physician, was honored recently at a banquet given by the Chamber of Commerce.

Dr. Seth S. Barnes, formerly of Cape Girardeau, has moved to Waynesville where as Health Officer he will direct the Pulaski County health program.

Dr. Wilbur McDonald, St. Joseph, has been named to the board of directors of the Buchanan County Tuberculosis Society, filling a vacancy caused by the resignation of Dr. H. E. Petersen.

Dr. Richard S. Weiss, St. Louis, retiring president of the Missouri Social Hygiene Association, spoke before the association at its annual meeting. He warned that penicillin is not a cure-all and must be supplemented with other drugs in the treatment of syphilis.

Dr. Everett B. Sugarbaker of the Ellis Fischel Hospital at Columbia spoke at a dinner party for members of Clay County Medical Society. Dr. Sugarbaker told the group of the progress and practices used in the retarding and cure of cancer.

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EDEMA—Proper elevation of the legs tends to diminish edema and *Contour's* 7 positions provide flexibility to insure comfort.

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an entirely new concept

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1. Improved circulation through mechanical stimulation of the nervous and muscular systems.
2. Improvement of metabolism in chronically ill patients who for medical reasons must refrain from usual exercise, and thus have a tendency to become sluggish and obese.
3. As a possible aid in digestion and elimination of waste through the stimulation of intestinal peristalsis and reduction of flatulence.

I might add at this point that no appreciable difference could be noted in pulse and blood pressure readings after subjecting several ambulatory patients to 30 minute interval viverations in this chair-lounge.

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From the Medical Schools

WASHINGTON UNIVERSITY

New Clinic

The Washington University Child Evaluation Clinic began operation February 1, primarily for the diagnosis and guidance of mentally retarded children. It is located temporarily on the second floor of the Renard Hospital, 4940 Audubon Avenue, and is the first clinic of this kind in Missouri. The agreement to begin operation was signed January 25 by representatives from the St. Louis Association for Retarded Children, the Children's Research Foundation and Washington University. The clinic is supported by funds from the Children's Research Foundation and the Association for Retarded Children, together with funds from the United Fund given through the association. The facilities of the Medical Center are available to hire personnel, diagnose cases and decide what treatment is needed. The clinic also is concerned with the teaching and training of personnel in the study and care of mentally retarded children and with research relating to methods of evaluation and rehabilitation. Dr. Bettye M. Caldwell, research associate in medical psychology and in pediatrics at the Medical School, has been appointed director of the clinic.

Appointment

Dr. Richard John Bing, professor of experimental medicine and clinical physiology and director of the Cardiac Clinic at the Medical College of Alabama, has been appointed chief of the Washington University Medical Services at Veterans Hospital and professor of medicine at the Washington University School of Medicine. The appointment becomes effective July 1. Dr. Bing was associate professor of surgery and assistant professor of medicine at Johns Hopkins Medical School before joining the Medical College of Alabama staff in 1951. He has taught and done research at Columbia and New York universities and has held fellowships at the Carlsberg Institute, Copenhagen, and the Rockefeller Foundation. A native of Nurenberg, Germany, Dr. Bing holds degrees from the Medical Schools of the Universities of Munich and Berne and has studied at the Universities of Vienna and Berlin.

Lectures, Meetings

Dr. Harry Grundfest, associate professor of neurology at the College of Physicians and Surgeons, Columbia University, delivered the first George H. Bishop Lecture in Experimental Neurology February 24 at the Medical Center. He discussed "Bio-Electricity in the Nervous System." Dr. Grundfest, who received his A.B., M.A. and Ph.D. degrees from Columbia University, also has done research at the Johnson Foundation of the University of Pennsylvania and at the Rockefeller Institute for Medical Research in New York. Dr. Bishop, in whose honor the lecture has been established, is professor emeritus and lecturer in neurophysiology at Washington University School of Medicine where he has been associated since 1921.

Dr. Hugo Theorell, chairman of the biochemistry department at the Nobel Institute in Stockholm, Sweden, discussed "Kinetics and Equilibria in Flavo-proteins" March 7 at the Medical School in a lecture sponsored by the department of biochemistry. Dr. Theorell won the 1955 Nobel prize for medicine for his twenty-year research on enzymes. Twenty years ago he made discoveries which enabled researchers to study the intricate working of vitamins. He won world fame when he succeeded in producing the "yellow ferment" in pure form. In recent years Dr. Theorell has carried out studies on antibiotics against tuberculosis.

Dr. Sidney G. Margolin, professor of psychiatry at the University of Colorado School of Medicine, delivered the third annual E. Van Norman Emery Memorial Lectures March 13. The two lectures are sponsored by Washington University and The Mental Health Association of St. Louis. In the morning Dr. Margolin discussed "The Influence of Psychophysiological States on Pathophysiology" at the Medical School and that afternoon he delivered an address on "The Psychology of Supportive Therapy" at the George Warren Brown School of Social Work of Washington University. While in St. Louis, Dr. Margolin also spoke at a meeting of the St. Louis Society for Neurology and Psychiatry and the staff of the Veterans Administration Hospital at Jefferson Barracks. The lectures honor the late Dr. E. Van Norman Emery who was professor of social psychiatry and lecturer in psychiatry in the Medical School at Washington University.

Four research papers by faculty members were presented at a meeting of the Washington University Medical Society on March 14 at the Medical Center. Participants and their papers were: Dr. Leonard Berg, instructor in clinical neurology, "Pathological Considerations in Differential Diagnosis of Muscular Dystrophy and Polymyositis"; Dr. Herman N. Eisen, professor of medicine (dermatology), "The Use of Simple Chemical Sensitizers in the Study of Hypersensitivity Phenomena"; Dr. Jack Davies, associate professor of anatomy, "The Placental Transfer of Sugars in the Rabbit"; Dr. Carl G. Harford, associate professor of medicine, "Electron Microscopy of HeLa Cells Infected by APC Viruses," a paper prepared in collaboration with Alice Hamlin, technician assistant in medicine; Esther Parker, research assistant in medicine; and Dr. Theodore Van Ravenswaay, fellow in medicine (infectious disease).

Several staff members from the department of surgery attended the recent meeting of the Society of University Surgeons in Indianapolis. These included: Drs. Charles Eckert, associate professor of surgery and director of the Division of Tumor Services; Harvey R. Butcher, Jr., assistant professor of surgery and Markle Fellow in surgery; and C. Barber Mueller, assistant professor of clinical surgery. Several also attended and participated in the recent meeting of the Central Surgical Association in Rochester, Minn. Included were: Drs. Eckert and Mueller; Sherman T. Coleman, assistant and American Cancer Society fellow in surgery; William T. Newton, assistant in surgery; and T. E. Weichselbaum, assistant professor of experimental surgery (biochemistry).

Visitors

A group of twenty-one Mexican orthopedists recently visited the department of surgery and attended

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meetings at which papers were presented by faculty members of the Medical School. Participants were: Drs. Fred C. Reynolds, Lauren V. Ackerman, J. Otto Lottes, Lee T. Ford, Jr., Stanley Leydig, Earl Holt, Marshall Conrad, Roland F. Neumann, Garland F. Smith and Edward C. Tolscher. Another recent visitor at the Medical School was Dr. Charles A. Janeway, professor of pediatrics at Harvard University Medical School and physician-in-chief at Children's Hospital, Boston.

UNIVERSITY OF MISSOURI

Appointments and Promotions

At the last meeting of the Board of Curators, Dr. Frank B. Engley, Jr., professor and chairman of the Department of Microbiology, was promoted to Acting Assistant Dean of the School of Medicine, effective January 1, 1956. Dr. Engley will continue with his duties in the Department of Microbiology.

Dr. W. Ray Hepner, Jr., associate professor of Pediatrics, was appointed to the position of Medical Director of the State Crippled Children's Service, effective February 1, 1956.

Dr. Jerry William Brown, currently with the Department of Anatomy, University of Pittsburgh, School of Medicine, Pittsburgh, Pennsylvania, was appointed as assistant professor of anatomy, University of Missouri School of Medicine, effective July 1, 1956.

Gifts and Grants

The University of Missouri School of Medicine has received $2,592 from the United States Public Health Service for six part-time medical research fellowships, from January 1, 1956, to December 31, 1956. Two students will be assigned to each of the following departments: Department of Microbiology, under the direction of Dr. Frank B. Engley, Jr., Chairman; Department of Biochemistry, under the direction of Dr. Thomas D. Luckey, Chairman; and the Department of Physiology and Pharmacology, under the direction of Dr. B. A. Westfall, Chairman.

Trips and Talks

On February 1, Dr. W. A. Sodeman, professor and chairman of the Department of Medicine, spoke before two groups in St. Joseph. In the afternoon, Dr. Sodeman addressed the members of the Sertoma Club on the subject "Hardening of the Arteries." In the evening, the Buchanan County Medical Society heard his talk on "Recent Advances in Digitalis and Quinidine Therapy." On February 10, Dr. Sodeman delivered the John Auer Lecture before the Phi Beta Pi Medical Fraternity at St. Louis University.

Dr. Robert Keller, assistant professor of microbiology, was guest speaker at a meeting sponsored collectively by the University of Missouri College of Engineering, State Division of Health, and the Adult Education and Extension Service. Dr. Keller lectured on the subject "Diseases Carried by Water and Sewage." On February 14, the entire staff of the Department of Microbiology attended a meeting of the Eastern Missouri Branch of the Society of American Bacteriologists held at the Wohl Health Center in St. Louis.

Dr. Clarence D. Davis, professor and chairman of the Department of Obstetrics and Gynecology, lectured on the subject, "Ectopic Pregnancy," at a meeting of

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Variety in taste and texture of foods must become the "spice" of a bland diet now that your patient can't have sharp seasonings and strongly flavored vegetables. These "do's" will help keep his diet tempting to both eye and palate.

For the "meat" of the meal—

Suggest that beef, lamb, and poultry be roasted or broiled and seasoned with salt and mild herbs.

Meat patties stay tender when crushed corn flakes and a little water are added to the finely ground beef. Salt and a hint of thyme or marjoram give savor.

Fish soufflé—flaked fish in any soufflé recipe—is a delicate delight when the top is crisped with cracker meal and butter.

Add the "trimmings" with imagination—

Vegetables such as string beans, peas, asparagus tips, and carrots may be cooked and served whole if young and tender—otherwise pureed. Potatoes may be boiled, baked, or mashed.

Salads of molded gelatin are pretty to look at—better to eat. Your patient may like one of strained beets livened with lemon juice, chilled, and served on shredded tender lettuce.

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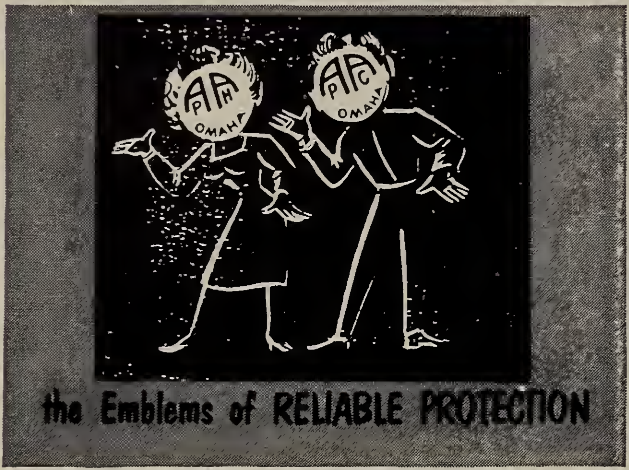
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the Kansas City Gynecological Society, held at the University Club of the University of Kansas Medical Center in Kansas City on January 26. On February 3, Dr. Davis attended a meeting of the Maternal Mortality Committee of the St. Louis Gynecological Society at St. Mary's Hospital in St. Louis.

Dr. Joseph E. Flynn, professor and chairman of the Department of Pathology, attended the 52nd Annual Congress of Medical Education and Licensure at the Palmer House in Chicago February 11 to 14.

From January 25 to January 27, Dr. Robert L. Jackson, professor and chairman of the Department of Pediatrics, participated in various activities sponsored by the American Diabetes Association held in Dallas, Texas. Dr. Jackson presented a lecture on "Diabetes in Childhood" as part of the Fourth Postgraduate Course and joined in a panel discussion on the subject of "Diabetes During Pregnancy." In addition to a meeting of the Council of American Diabetes Association, various committee sessions were held during the time of the general conference. On February 9, Dr. Jackson was in Chillicothe at a meeting of the Grand River Medical Society where he spoke on the subject, "The Diabetic Child."

Dr. Samuel P. W. Black, associate professor of surgery, attended the chapter meeting of the Central Missouri American College of Surgeons held in Columbia on February 20.

Dean Roscoe L. Pullen represented the University of Missouri School of Medicine at the 52nd Congress on Medical Education and Licensure of the American Medical Association in Chicago from February 11 to 14.

Dr. William A. Sodeman, professor and chairman of the Department of Medicine; Dr. Robert L. Jackson, professor and chairman of the Department of Pediatrics; Dr. Walter J. Burdette, professor and chairman of the Department of Surgery; together with Dr. Earl Loyd, of Jefferson City, and president of the Missouri Heart Association, presented a panel discussion on KOMU-TV, February 20, concerning the prevention and new developments in heart disease.

Postgraduate Activities

The third sessions in the current Postgraduate Medical Education Courses being offered this winter in Springfield and Joplin were conducted on January 18 and 19. Dr. Clarence D. Davis, professor and chairman of the Department of Obstetrics, gave talks on "Indications for Resection or Removal of the Ovary" and "Office Gynecology." Dr. Walter J. Burdette, professor and chairman of the Department of Surgery, lectured on the topics "Management of Chest Trauma" and "The Problem of Hernia." Both talks were well received.

On January 26, at the Postgraduate Medical Education session in Columbia, Dr. Burdette repeated his lecture on "The Problem of Hernia" and Dr. William A. Sodeman, professor and chairman of the Department of Medicine, completed the program with a discussion of "Fever of Undetermined Origin."

SAINT LOUIS UNIVERSITY

The class of 1946 is holding a reunion April 11 during the Missouri State Medical Association Convention being held at the Sheraton-Jefferson Hotel April 8, 9, 10 and 11. The day's reunion will begin with a luncheon at Firmin Desloge Hospital and will be followed by a tour of the Medical School. A dinner dance is scheduled at the Coronado Hotel, with a cocktail party scheduled for 6:30 p.m. Interested graduates may contact Dr. Robert Brennan, Secretary, 609 Humboldt Building, 539 North Grand Boulevard, for further information

A round table discussion on prevalent virus diseases was held at the St. Louis Medical Society on Tuesday, February 21. Participants were Drs. G. O. Broun and R. Walter Schlesinger of Saint Louis University and Dr. Carl Harford of Washington University. Dr. Broun was moderator. Dr. Broun also attended a symposium on "Infectious Diseases" sponsored by the Medical Education for National Defense Program at the Great Lakes Naval Training Center, February 14 to 16.

On February 25 representatives from the School of Medicine attended the Missouri Regional Meeting of the American College of Physicians held at the University of Missouri. Attending were Drs. Broun, John W. Berry, assistant professor of clinical medicine, William A. Knight, associate professor of internal medicine and Daniel L. Sexton, associate professor of clinical medicine. A paper on "Massive Gastrointestinal Hemorrhage" was presented by Dr. Knight and Dr. James F. Sullivan, instructor in internal medicine. A paper on "Observations on One Hundred Cases of Heat Stroke" was presented by Dr. Berry and Dr. Martin G. Austin.

Dr. C. Rollins Hanlon, director of the Department of Surgery, attended a meeting of The Chest Club February 22 in Rochester, Minnesota, and a meeting of the Central Surgical Meeting February 23 to 26.

Dr. R. Walter Schlesinger, Director of the Department of Microbiology, was recently the recipient of a $13,133 research grant from the United States Public Health Service. The grant was awarded in support of studies on dengue and related virus diseases.

Dr. A. D. M. Greenfield, director of the Department of Physiology from The Queens University of Belfast, Great Britain, visited the research laboratories of the Physiology Department January 24 and 25. Dr. Greenfield, prominent investigator of the circulation system, is making a nationwide tour of laboratories devoted to the study of circulation.

Dr. Sitarm Kapoor, associate professor of physiology of King George's Medical College, Lucknow, India, visited the Physiology Department February 6 and 7. Dr. Kapoor recently completed sixteen months research study at the Kansas City Medical Center and at Kansas Medical School under a fellowship from Rockefeller Foundation. Before returning in India, he is making a tour of physiology departments of medical schools, his first stop being at Saint Louis University. Dr. Kapoor made the study to aid him in equipping a new cardiovascular laboratory at King George's Medical College.

Three members of the Department of Pediatrics will attend The American Academy of Pediatrics Region Six Meeting on Medical Education March 9 and 10. Attending will be: Dr. Peter G. Danis, professor of clinical pediatrics and chairman of the department; Dr. James P. King, assistant professor of pediatrics and Dr. Chester P. Lynxwiler, assistant professor of clinical pediatrics. They will participate in discussions on "The Role of the Outpatient Department in the Teaching of Pediatrics." The University of Cincinnati is host to the meeting.

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A copy of "Uses of Wine in Medical Practice"—summarizing recent research findings—is available to you at no expense, by writing to: Wine Advisory Board, 717 Market Street, San Francisco 3, California.

Musings of the Field Secretary

(Continued from page 294)

form. Here was a real opportunity to learn from others—from those who know their business and appeared on the program because of that fact. A number of the real problems encountered in medical society activities were brought before the institute and forcefully attacked. Some of the subjects discussed were: “Committee Organizations and Procedure,” “Effective Letter Writing,” “Effective Public Speaking,” “Possible Legal Problems of Medical Associations,” “Membership Problems” and “Financing and Budgeting Association Activities.”

The audience was attentive.

The speaker met with approval.

More than 250 medical society executives were in attendance. Those present from Missouri were: John Buckner, Springfield, Executive Secretary, Greene County Medical Society; William F. Swegle, Kansas City, Executive Assistant, Jackson County Medical Society; William H. Bartleson, Kansas City, Executive Secretary, Jackson County Medical Society; Hollister Smith, St. Louis, Executive Secretary, St. Louis Medical Society; T. R. O’Brien, St. Louis, Executive Secretary, Missouri State Medical Association and Yours truly.

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*Lawrence, W. E.; Kahn, S. S., and Riser, A. B.:
South. M. J. 47:105, 1954.

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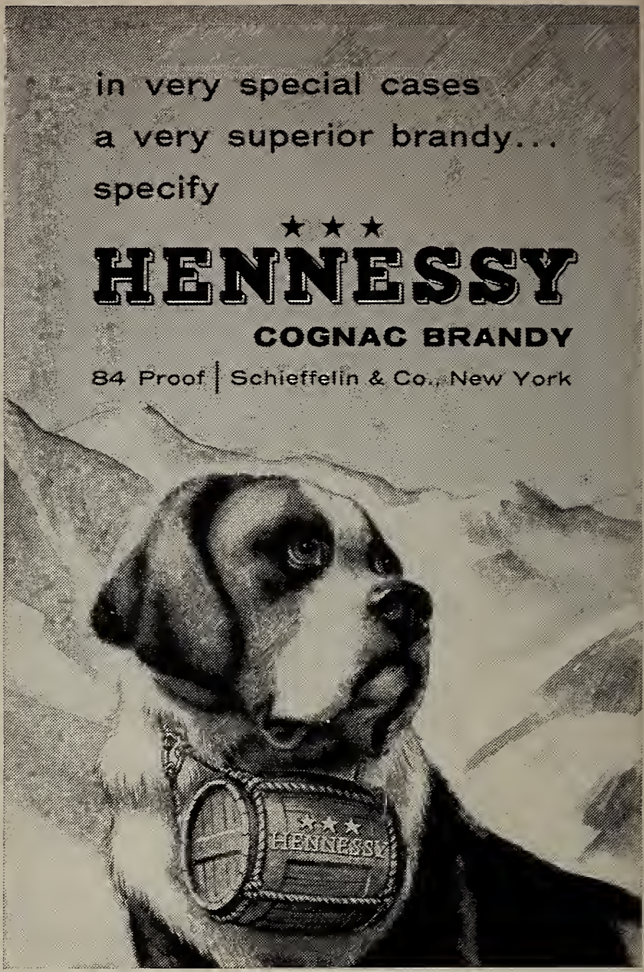

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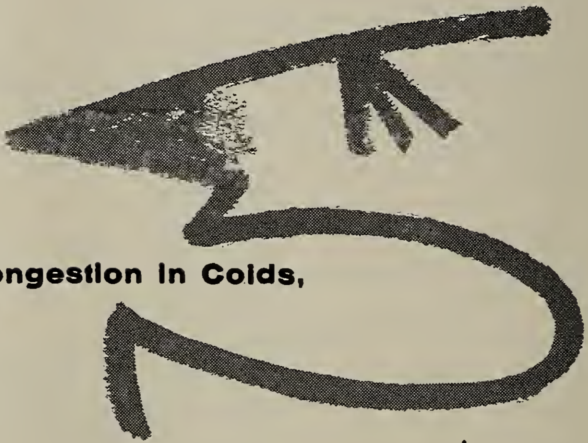

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Editorials

(Continued from page 292)

lights of the nation's center of press, radio and television and great newspapers and magazines having national distribution.

That the Medical Society of the County of New York achieves high status by this very difficult yardstick of public and press opinion, is a measure of its current leadership and its progressive and forward thinking. One, therefore, extends congratulations on this occasion of its sesquicentennial celebration not only for its distinguished achievements of the last 150 years but, equally important, for its current ability to prove, for all the nation to see, that medicine is a public service profession of the highest ethical and honorable tradition.

State Board of Medical Examiners

(Continued from page 272)

forms with all of these requirements except that of requiring an internship before being allowed to take the examination. We have felt that graduates from our modern approved medical schools should be allowed to take the examination for licensure.

The report goes on to specify the scope of the examination, the method of giving it, that it should be given at least semiannually provided there are applicants, and that a minimum grade of 70 per cent in each subject and a minimum general average of 75 per cent should be required. Your State Board conforms to all of these suggestions. When compared to the model Medical Practice Act evolved by this Committee, the Missouri State Medical Practice Act compares favorably indeed. As a matter of fact, we are one of the two best Boards of the whole United States.

BOOK REVIEW

COUNSELING IN MEDICAL GENETICS by Sheldon C. Reed, Director, Dight Institute for Human Genetics, the University of Minnesota. W. B. Saunders Company, Philadelphia. 1955. Price $4.00.

One out of sixty-five infants will have some type of congenital abnormality. Not because each of his parents possessed eight deleterious genes in his own body but more likely because of the particular combination of genes finding their way into the body of the child or because of environmental conditions either within the uterus or after birth. Many of these defects seem sex linked, with the male the less favored species.

Even the disease potential of the individual is related to his genic endowment, whether the disease be tuberculosis or a psychosis. The gene for schizophrenia has less, that for the manic-depressive, more penetrance. The rare and puzzling anomalies of medical practice such as alkaptonuria are likely to result from the expression of the homozygotes united by a first cousin marriage.

Of these and similar fascinating facts Reed writes entertainingly and informatively in his 268 page volume. Alert to the sociologic and familial inquiries directed to the physician he provides much abstruse knowledge in easily readable form. Perhaps not much will be done for the succeeding generation because the information has been codified but the anxious parent uncertain of the wisdom of a second or third pregnancy may be considerably mollified. B. Y. G.

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Curiosa et Trivia

William B. McCunniff, M.D.

The word "malignancy" means malice, purulent, or the quality of being evilly disposed. It is an abstract idea and should not be used to denote a cancerous growth.

Still on display in the Smithsonian Institute is the first ice machine, invented by Columbia, South Carolina, physician, John Gorrie.

A catalog of the Fairfield (New York) Medical School for the 1818-19 session noted the beginning of a consistent pattern: ". . . the whole amount of tuition . . . is sixty-two dollars fifty cents . . . an increase of twenty-five per cent." The same catalog, however, softened this blow by noting that ". . . board in the village can be obtained from one dollar fifty cents to two dollars per week."

Dr. Joseph Warren started Paul Revere and Dawes on their midnight ride to warn the colonists. Although neither of them reached their destination, a Boston physician, Dr. Samuel Prescott, joined them and reached Concord alone.

As early as 1828 it was recorded that ". . . the bedpan is so well known that little is requisite to be said about it. One of pewter is to be preferred, as it is less likely to break or be injured, and it should have a flannel case to it." And in 1956 there is still this to be said about it: the design is essentially unchanged, pewter has been replaced by stainless steel (for the reason named), but the newer metal is no less cold nor more comfortable; and we presume that it still "should have a flannel case to it."

Capsule Clinics

I. A. Wien, M.D.

- Spondylolisthesis is a forward displacement of the fifth lumbar vertebra and spinal column upon the sacrum. Rarely the fourth lumbar vertebra is displaced forward on the fifth lumbar vertebra and sacrum. When slight displacement is present, it may be impossible to differentiate clinically between lumbosacral sprain or ruptured intervertebral disk. Shands, A. R.: Handbook of Orthopedic Surgery, 4th Ed., C. V. Mosby Co., St. Louis, 1952.

- Radical surgery and roentgen therapy are the treatment of choice for carcinoma of the breast when feasible, but hormonal therapy has a very important place in palliation. In the premenopausal woman with evidence of metastasis, bilateral oophorectomy should follow radical mastectomy. Hammond, F. M., and Rodarte, J. G.: Med. Clin. North America 39 (July) 1955.

- In carcinoma of the midrectum the thought of saving the sphincters should not be approached with enthusiasm but with factual knowledge and considerable surgical skill, for one is dealing with cancer, a lesion never treated too early and seldom too radically. Sommers, H. M., and Maddock, W. G.: Surg. Clin. N. America 34 (February) 1954.

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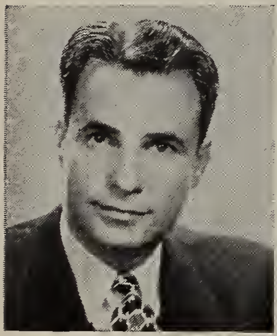
Missouri Medicine in Review

Leo H. Pollock, M.D.

FORTY YEARS AGO

Just as we are going to press word has been received that Mrs. Charles R. Woodson, wife of our President, died April 24, 1916, from pneumonia.

Four suits against members of the Association for alleged malpractice were concluded in St. Louis recently, all resulting in favor of the physicians. The Defense Committee assisted each of the members in the preparation of the case.



The St. Louis University Medical School, Marion-Sims, and the Beaumont Medical College Alumni, held their annual reunion and banquet Tuesday evening, March 21, at Lippe's Cafe in St. Louis.

Dr. T. T. O'Dell, Marionville, formerly of Ellington, has purchased the Marionville Hospital. It has a capacity of eight beds and is well equipped. Dr. J. W. Andrews is associated with Dr. O'Dell.

Dr. C. W. Russell, Springfield, president of the Greene County Medical Society, spent several weeks in New Orleans attending the clinics at Tulane University Medical School.

Dr. A. H. Hamel, St. Louis, has been appointed councilor of the 20th district to fill the vacancy caused by the death of Dr. F. J. Lutz. The district comprises the City of St. Louis and the County of Franklin.

Dr. W. L. Brosius, Gallatin, spent several weeks in the clinics and hospitals of the East during April.

The Woman's Medical College of Pennsylvania has established a fellowship amounting to $1,000 to be awarded annually to any medical woman of special ability who, following the undergraduate course, has completed at least one year of hospital service, including work in maternity wards, and one year of further practice. The amount is to cover twelve months of special work as Fellow in Obstetrics, with the condition that the holder of the fellowship shall thereafter continue the practice of obstetrics.

TWENTY-FIVE YEARS AGO

The bill introduced by Senator Joseph H. Brogan at our request amending the Workmen's Compensation Law by increasing the minimum sum allowed for the first sixty days following an injury from $250 to $750 and extending the period of time from sixty days to ninety days, was passed by the Senate on April 8 and approved by Governor Caulfield on April 16.

Through the generosity of the late Mrs. Louis P. Blosser, Marshall, the crippled children's service of the medical school of the University of Missouri will be appreciably extended. She provided in her will for the establishment of the Georgia Brown Blosser Home for Crippled Children at Marshall and left a fund of $500,000 for the maintenance of the home.

In Missouri there were 159 hospitals with 26,078 beds registered by the Council at the close of 1930. Of this total twenty-three of the institutions with 589 beds were listed as being deficient in some respect—inadequacy of laboratory facilities, staff organization, radiologic service, records. The average daily number of patients in the registered hospitals was 21,141. Twenty-four of the hospitals are approved for general internship and thirteen for residency in specialties; forty-three have schools of nursing accredited by the state board of nurse examiners. There were 6,719 hospitals in the whole country registered by the Council at the close of 1930 with a total of 278,634,430 patient days recorded for the year, an increase of 13,364,840 days over 1929. The daily average numbers of patients in all registered hospitals was 763,382.

Dr. L. O. Nickel, Moberly, was elected mayor of that city April 7.

Cancer caused the death of 3,917 persons in Missouri last year, according to the bureau of vital statistics of the state board of health. This number represents 108 deaths in each 100,000 of population in the state.

TEN YEARS AGO

Howard B. Goodrich, M.D., Hannibal, was elected and installed as President of the Missouri State Medical Association by the House of Delegates at the 88th Annual Session, meeting in St. Louis, March 26. Dr. Goodrich has been active in medicine in Missouri since 1926 when he began practice in Hannibal. He was born in Brooklyn, New York, on June 15, 1899, the son of the late Dr. Charles Howard Goodrich of Brooklyn, president of the New York State Medical Association in 1937.

House Bill No. 206, known as the Doctors' Prefix Bill becomes law on July 1, 1946. Members are urged to make appropriate changes immediately in their office name plates, stationery, cards, prescription blanks and such. The law provides that any one using the word "Doctor" or "Dr." before his name must affix words or letters after his name designating the degree held or the type of practice in which the individual is engaged. The law applies as well to dentists, osteopaths, chiropractors, optometrists or any other person practicing a healing

(Continued on page 402)

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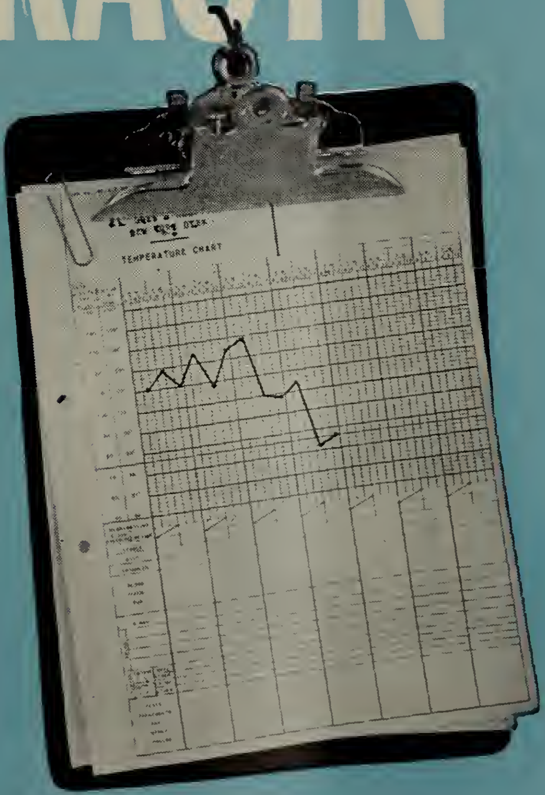

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Missouri Academy of General Practice

J. H. Trolinger, M.D.

American Academy of General Practice

Under the dateline of March 25, 1956, we have just received from our "roving correspondent" (Past President of the Missouri Academy of General Practice, Present Chairman of its Education Committee, member of the State Board of Medical Examiners of Missouri and Pillar-in-General of Missouri Medicine), William J. Shaw of Fayette, a few hot highlights from the Washington Assembly of the AAGP.

Dr. Charles Martin, President-elect of the Missouri Academy, was elected Treasurer of the AAGP to succeed Dr. U. R. Bryner who has finished the term of Holland Jackson after his resignation due to illness. This notable honor to Dr. Martin will afford a warm sense of gratification to all members of our state Academy.

More than thirty members from Missouri had registered the first two days. The Missouri Academy was well represented by its president, Dr. Tom Dwyer; national delegates, Martin and Glover and an interesting scientific exhibit by Director W. E. Henrickson, Poplar Bluff.

Dr. J. S. DeTar, who will attend our annual meeting in October, was installed as President. It seems quite obvious that the midwest's influence and strength are flourishing. In addition to the election of our own president-elect as treasurer, the AAGP elected the following: Malson Phelps, Oklahoma, President-elect; Bill Sproul, Iowa, Vice-president; Fount Richardson, Arkansas, was named Chairman of the Board of Directors; Jim Murphy, Texas, was reelected Speaker of the House of Delegates.

The three new directors were Bratt, New York State; John Walsh, California, and Carleton Smith, Illinois (at present our regional advisor from the Commission on Education). All have been doing outstanding work in postgraduate education programs.

Our ubiquitous correspondent's dispatch ends on a (falsely) rueful note of personal financial frustration. It seems that Bill had won second place in a raffle (to the astronomical sum of $15), but the drawing was held while he was briefly absented from the House of Delegates; however, our ever alert delegate, Kenneth Glover, acting in his official capacity with his customary acerbity and alacrity accepted the money for our absent correspondent, and quite properly (and with enviable magnanimity) assigned the sum to the Permanent Building Fund on behalf of the Missouri Academy.

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Woman's Auxiliary

Mrs. Charles *(Susan)* Shepherd, *President*

The new picture on this page means that another year has passed and another convention has been held and a new group of members have agreed to serve in the capacity of officers and committee chairmen for the Woman's Auxiliary to the Missouri State Medical Association.

Each officer and chairman has been carefully chosen because she has shown capability and enthusiasm for the task to be performed.

It will be their pleasure, by example and inspiration, to interpret their duties of office in conformity with the regulations, standards, policies and basic principles of the national Auxiliary, to each of the thirty-one auxiliaries which make up the membership of the State Auxiliary.

Through active participation on the local levels, our members will strive to help the lay public understand the function, policies and aims of the medical profession. To select and promote educational and service activities relating to health and medical care needs is just one phase of our work. To make each Auxiliary member aware of her responsibility as an ambassador of good will for the medical profession in her daily contacts is another.

Giving of scholarships for nurses and actively recruiting personnel for careers in the many other health services has been and will continue to be a major project for the auxiliaries. Raising of money for the American Medical Education Foundation has been given impetus the last three years. Learning what to do in the event of disaster has been the work of the Civil Defense Committee. Mental Health is still another field we have been approaching cautiously, striving to educate ourselves and the public to the appalling needs in this field. Keeping abreast of legislation pertaining to the medical profession is still another and, on and on, are the many phases of auxiliary activities. But probably best of all are the very wonderful times we enjoy by social contact and good fellowship of working together on mutual projects.

It has been said that many men could not tell the color of their wife's eyes . . . unless they were looking right at her; and some of us think that a great many doctors have only a vague idea of what an Auxiliary is supposed to be; so this year we are going to look right at you and tell you, by this printed page so graciously alloted to us in this, your publication, and by a campaign by our members.

We ask only that you, our most and dearly beloved doctors, strive to know us, support us by your encouragement and help us to become a forceful organization.

Progress in the Prepayment Plans

Blue Cross-Blue Shield in the Kansas City area —thirty counties in western Missouri and two in eastern Kansas—averaged almost one million dollars a month in benefits paid in behalf of their members during 1955.

F. K. Helsby, executive director of the nonprofit health care prepayment plans, says payments by the plans totaled $11,443,063, of which Blue Cross allowed benefits of $7,551,783 to hospitals for care of members in 70,685 cases. Blue Shield paid doctors $3,891,280 for their services in 156,956 cases.

Membership in Blue Cross in the Kansas City area is now 456,674, while Blue Shield reports 418,193 members. Nationally, Blue Cross membership reached 50,174,264 on September 30, 1955, making this the largest voluntary organization in the nation. At the same time Blue Cross enrollment topped the fifty-million mark, national Blue Shield membership had increased up to 34,324,781.

The three-story and basement structure which will house headquarters of the Kansas City Plans is scheduled for completion about May 1. Once moved into the critically needed space, built to the needs of the Plans, it is anticipated further savings for the membership will be realized.

For one thing, although the Kansas City Blue Cross Plan has one of the lowest operating costs of all plans, improvement in efficiency is expected, and the Plans will be able to continue all possible operating economies. The building is at Thirty-Seventh Street and Broadway in Kansas City.

The fall open enrollment in the Kansas City area was one of the best since the initial such period several years ago. About 10,000 new members enrolled during the open period—designed to offer this protection to those who do not have group membership available.

benefits of prednisone and prednisolone *plus* positive antacid action to minimize gastric distress...

A reportedly higher incidence of gastric distress in patients receiving the newer steroids prednisone and prednisolone indicates the desirability of co-administering non-systemic antacids.[1]

To help the physician cope with this problem of gastric distress which might otherwise become an obstacle to therapy with the newer steroids . . . Multiple Compressed Tablets 'Co-Deltra' (Prednisone Buffered) and 'Co-Hydeltra' (Prednisolone Buffered) are now available.

'Co-Deltra' and 'Co-Hydeltra' are now available in bottles of 30 on your prescription. Each Multiple Compressed Tablet contains:

Prednisone or Prednisolone, 5 mg.; 300 mg. of dried aluminum hydroxide gel, U.S.P., and 50 mg. of magnesium trisilicate.

'Co-Deltra' and 'Co-Hydeltra' are trade-marks of Merck & Co., Inc.

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[1] Bollet, A. J., Black, R., and Bunim, J. J.: *J.A.M.A.* **158:** 459, June 11, 1955.

Co-Hydeltra'

Prednisolone Buffered

SHARP & DOHME

Philadelphia 1, Pa.
Division of Merck & Co., Inc.

Missouri State Board of Medical Examiners

Duff S. Allen, M.D., *President*

The Model Medical Practice Act

In the April issue of Missouri Medicine we discussed briefly the question of reciprocity between states. It was pointed out that the underlying factors which lead to the refusal of one state to grant reciprocity with another stems from the differences in the type of examination given by the various states or in the differences in the types of state boards giving the examinations. Some state boards are composed of laymen rather than of physicians, or at least they have enough laymen on the board to make them unacceptable to those boards which are composed entirely of physicians. Besides this, however, it is not infrequent that one state board will not grant reciprocity because the state in which the doctor is licensed has in the past been beset with diploma mills. Our own state had several of these diploma mills twenty or thirty years ago, but they have long since been closed.

In spite of the fact that we now are one of the two most favorably constituted State Boards in the whole United States and in spite of the fact that we are most careful not to issue a license in the State of Missouri to any one who is not thoroughly qualified, still one of our sister states whose border touches that of Missouri will not grant a license to even the recent graduates of our schools and who have passed our examinations unless the young doctors take their state board examinations. The practice of refusal of reciprocity between our state and this state is in the same status that obtained fifty years ago.

The Federation of State Medical Boards has long ago recognized these inequalities in our state boards. After three years of intensive study the Model Practice Act has been delineated and it is probable that most of our state boards will become modernized in the next five or ten years.

Let us examine the essentials as put forth by this committee, or the composition of the ideal state board, and then let us compare our own State Board with these essentials.

First of all, the committee holds that a state board should be composed entirely of physicians, it should be an independent board with full authority to regulate itself and authority to carry into effect the provisions of an act. Your board fulfills all these requirements. Not all of our state boards are so fortunate since many of them are encumbered by rules and regulations not of their own making, and they are further encumbered by the presence of laymen who know little or nothing of the problems of medicine.

A second essential qualification of the ideal state board is that it be supported by funds obtained from licensure fees or from funds contributed by the doctors themselves as registration fees. It is at once apparent that if the board has its own source of income, it has generally more freedom of action and it is less constrained in the expenditure of its monies than it would be if it were obliged to apply for an appropriation from the general revenues each year. Our State Board is fortunate in this respect in that it has its own income.

The committee further recommends that the Modern Medical Practice Act should make it possible for the board to prescribe regulations concerning the requisite qualifications of education, residence, citizenship, training and character for admission to an examination for licensure. Our State Board has all of these powers. It also follows closely the recommendations made for the conduct of examinations and the issuance of licenses without examination by reciprocity. We grant licenses by reciprocity freely but they are always on an individual basis. We do not concern ourselves exclusively with the state from which the applicant comes who seeks reciprocity, but rather with the school from which he has graduated, and sometimes with his record after graduation. We do not issue temporary licenses as is recommended by the committee.

In most other respects as, for example, the grounds for suspension and revocation of licenses, the definition of the unlawful practice of medicine and the rules and regulations under which we operate, we are in almost complete accord with the recommendations. Perhaps the explanation for this lies in the fact that our state constitution was rewritten less than ten years ago, and in the revising of it our Medical Practice Act was brought up to date.

Latent abilities are like clay. It can be mud on shoes, brick in a building or a statue that will inspire all who see it. The clay is the same. The result is dependent on how it is used.—*James F. Lincoln.*

If we are to achieve a victorious standard of living today we must look for the opportunity in every difficulty instead of being paralyzed at the thought of the difficulty in every opportunity.—*Walter E. Cole.*

Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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Vol. 53 May, 1956 Number 5

Non-Neoplastic Diseases of the Kidney

The Diagnostic Value of Needle Biopsy

ROBERT W. OGILVIE, M.D., *St. Louis*

NEEDLE BIOPSY has been utilized as a diagnostic adjuvant for many years. In some neoplastic disease processes its use has provided the surgeon with a definite diagnosis, thereby aiding in a more intelligent plan of therapy. In recent years, however, one complication has become well known; that is, the possibility of implantation metastases along the needle tract subsequent to biopsy of a malignant tumor.[1] In soft tissues and certain organs such as thyroid and salivary gland, this complication has been readily overcome by so directing the original biopsy tract that it would be readily encompassed by the subsequent definitive surgery. In deep organs, a more complex problem is presented, for the depth of the needle tract makes subsequent proper excision more difficult, and the tumor fragments may be dislodged to implant upon distant surfaces as well as in the biopsy tract. Thus, this risk of needle biopsy of intra-abdominal and intrathoracic neoplasms must be kept in mind.

With the advantages of a histologic diagnosis so readily apparent, it is surprising that needle biopsy of certain solid viscera such as liver and kidney has not been used more frequently in the diagnosis of non-neoplastic disease processes. Widespread attention to its use for this purpose was not manifest until after 1939 when Iversen and Roholm[10, 21] demonstrated its usefulness in investigations of the histopathology of acute hepatitis and other liver diseases. In subsequent years the practicality and value of the liver aspiration biopsy has been proven repeatedly.

In 1951, Iversen and Brun[11] reported their preliminary investigations of renal disease processes by histopathologic evaluation of renal tissue removed by aspiration biopsy and its correlation with certain renal function tests. Prior to this time apparently the only renal biopsies of non-neoplastic kidneys were those during the course of surgical procedures for hypertension.[7] Alwall[2] previously had performed thirteen needle biopsies in 1944 but had abandoned this procedure because of the death of one patient in renal failure subsequent to biopsy. Since 1951, physicians have been slow in accepting and adding this procedure to their diagnostic armamentarium. In an attempt to stimulate more extensive investigations, it seems desirable to report a limited experience and summarize some of the pertinent information regarding this technic with particular emphasis on its diagnostic merits.

MATERIAL AND METHODS

During the last few months renal needle biopsies have helped to resolve the nature of the renal disease in four patients in Barnes Hospital. A modification of the prone position technic described by Kark and Muehrcke[13, 16, 17] was used in preference to the upright sitting position technic suggested by Iversen and Brun.[11] Procedural details are given in the articles by the mentioned investigators.

CASE REPORTS

Examples of the basic diagnostic problems and the role played by the renal biopsy in these cases are as follow:

Case 1. Mr. L. T., a 44 year old white dental technician, entered Barnes Hospital on June 17, 1955, for evaluation. He had been afflicted with Marie-Strumpel's arthritis since age 7 but had been relatively free of pain and discomfort during the last few years. During the five months prior to entry, the patient had developed the clinical picture of the nephrotic syndrome.

From the Departments of Surgery and Surgical Pathology, Washington University School of Medicine, and Barnes Hospital, St. Louis.

There was a question as to whether this was due to renal amyloidosis or chronic glomerulonephritis. A needle biopsy of the kidney was performed and revealed the changes of amyloidosis (fig. 1).

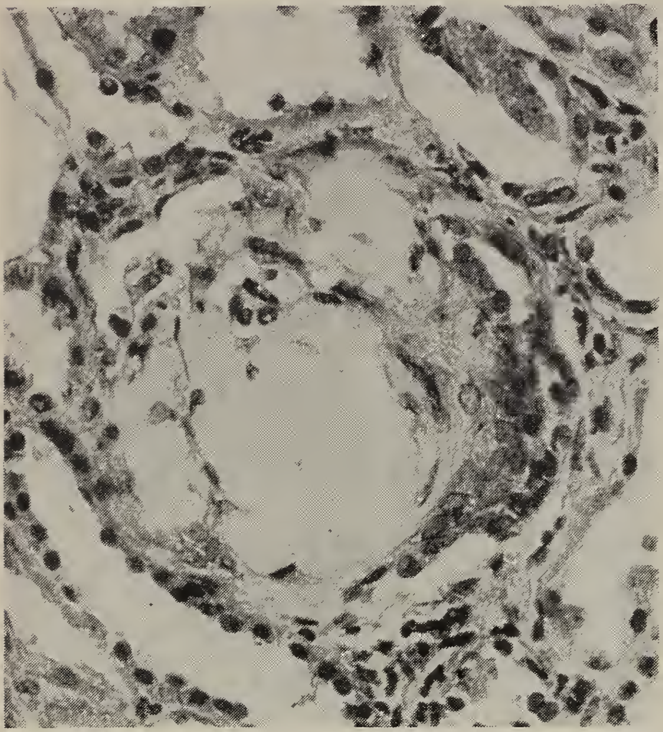

Fig. 1. Case 1. The renal needle biopsy specimen revealed glomeruli, such as this, which were largely occluded by rounded masses of homogenous pink material that took a metachromatic stain for amyloid. A definitive diagnosis was thus established, making further diagnostic procedures unnecessary.

Case 2. Mr. J. J., a 51 year old white businessman, had been well until four or five months before admission when he noted the onset of fatigability and anorexia. About ten days before entry, nausea and vomiting prompted a medical consultation at which time his physician found albuminuria and microscopic hematuria. There was no family history of renal disease and no known exposures to toxins or infection. Two years prior to this episode he had had a complete medical checkup and was found to have no abnormal urinary findings. On entry the hemoglobin was 8 gm.; the maximum urine concentration was 1.014 and there was 3+ albuminuria with many red blood cells and a few casts. Nonprotein nitrogen was 137, but there was no clinical evidence of uremia. After careful laboratory and clinical investigation the diagnosis remained in dispute. Hypoxic (lower nephron) nephrosis or some similar potentially reversible disorder due to an unrecognized toxic agent was suggested as a possibility as were other conditions such as pyelonephritis or glomerulonephritis. In the hope of crystallizing the diagnosis and perhaps revealing a reversible lesion which might respond with the aid of dialysis, a renal needle biopsy was performed. This revealed the histologic picture of subacute glomerulonephritis and no evidence of a reversible process (fig. 2).

Case 3. Mr. B. G., a 59 year old white farmer, was well until two years ago when he noted an episode of bilateral lumbar backache without urinary symptoms. This gradually subsided and he was well until one month prior to admission when he began having headaches and paroxysmal nocturnal dyspnea followed by orthopnea, ankle edema, frequency and nocturia. Two weeks before entry he suddenly developed vertigo, collapsed and fell to the ground. Upon arising there was generalized weakness, more on the left side, with associated dysarthria but no aphasia or dysphagia. After examination it was concluded that the patient had malignant hypertension (230/130) with uremia and hypertensive encephalopathy. One unusual feature, namely marked oliguria, was noted. In the chance that he might have some complicating reversible renal disease, a renal needle biopsy was performed. This revealed severe arteriolar nephrosclerosis and no evidence of a reversible disease process. Following biopsy, he had rather prominent gross hematuria for about two or three days, and despite fluid replacement therapy, he developed renal acidosis of increasing severity and finally expired eight days following biopsy.

Case 4. Mrs. P. W., a 22 year old white housewife, entered Barnes Hospital because of massive anasarca. The patient had been in good health and without a history of nephritis or other urinary disorder until the second month of her first pregnancy, in October 1954, when she first noted fatigue. During the next several months she noted increasing ankle and leg edema and was told she had albuminuria. Following a spontaneous abortion at six months, her edema disappeared temporarily only to recur with greater severity and extent. After complete examination it was concluded that the patient was most likely in the nephrotic stage of a rather rapidly progressing glomerulonephritis. A renal needle biopsy was suggested in order to prove the diagnosis prior to ACTH therapy. Renal biopsy revealed the microscopic picture of subacute glomerulonephritis.

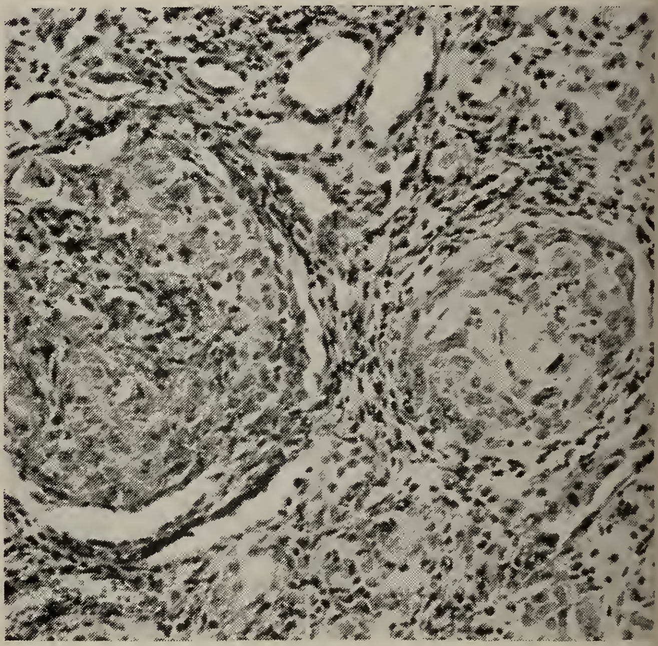

Fig. 2. Case 2. The needle biopsy specimen revealed diffuse glomerular lesions, including epithelial crescents, capsular adhesions and endothelial cell hyperplasia which, together with the relatively short duration of illness, were consistent with a diagnosis of subacute glomeruloneprhritis. In this instance the biopsy crystallized the diagnosis which had been in dispute and ruled out a reversible lesion which might respond with the aid of dialysis.

In each of these instances the needle biopsy was efficacious; it provided a definitive diagnosis, ruled out potentially reversible renal disorders, thereby obviating any need for dialysis and aided in a more rational therapeutic approach.

VALUE OF NEEDLE BIOPSY

Various investigators have demonstrated the usefulness of renal needle biopsy in the nephrotic syndrome,[3, 4] nephrocalcinosis,[5] diabetic nephropathy,[6] amyloidosis[3] and the acute oligoanurias.[9] Cases have been cited[6, 16] in which the clinical diagnosis has been entirely changed by the findings at biopsy. The exact diagnosis of renal disease is often difficult. By use of the renal biopsy more accurate diagnoses can be established than by clinical methods alone.[19] Another contribution of renal biopsy is that it provides a more adequate evaluation of prognosis. Serial biopsies also tend to show the rapidity of progression of certain disease processes.[18]

Thirdly, the biopsy findings may at times prove to be of great value as a guide to therapy. It has been reported[4] that ACTH therapy is effective in the nephrotic syndrome in those cases which displayed only minimal histologic changes in the glomeruli. Also, in acute anuria, the selection of patients for dialysis might be influenced by the nature of the biopsy findings, because dialysis seems to be of value only in those cases with potentially reversible changes. As additional therapeutic methods become available, it is likely that the biopsy findings will assume increasing importance.

A fourth important contribution has been reported by Muehrcke et al.[16] They have utilized biopsy material for bacteriologic evaluations and suggest that this provides a more accurate appraisal of possible renal infections than do blood or urine cultures. In this regard they found that of five patients with occult renal infections who were culturally positive at time of renal biopsy, only two were found to have positive urine cultures. In none of their patients was there evidence of dissemination of the infection by the needle biopsy.

In addition to these considerations of immediate practical importance it is expected that needle biopsy will provide valuable material for the study of renal histochemistry, cytology and anatomy. The relatively unaltered fresh tissue thus obtained is notably adaptable for these purposes.

COMPLICATIONS

In spite of the usefulness of needle biopsy in renal disease, there has been reluctance to utilize this technic. Perhaps this can be justified by those who recall the relatively frequent complications encountered during the early development of the liver needle biopsy methods. This argument is, however, no longer tenable in liver biopsy for, in capable hands, the procedure carries only a slight mortality and morbidity, estimated by Terry[22] at 0.12 per cent and 0.32 per cent respectively in a large series of more than 7,000 cases collected from the literature.

As with all procedures in medicine, complications have occurred with renal needle biopsies; however, most have been of minor importance. There is local pain of short duration in most cases. The biopsy is attended by universal transient, usually microscopic, hematuria of 6 to 12 hours duration. Occasionally a transitory gross hematuria with passage of clots occurs. Only one of 179 patients in Muehrcke's series[16] had sufficient hematuria to require a blood transfusion. No cases of serious hemorrhage have been reported by the Danish investigators. Unfortunately I must add one case (Case 3) of prolonged gross hematuria, which possibly contributed to the patient's death from malignant hypertension eight days after biopsy. Also, in one case reported by Parrish[19] there was a rather extensive retroperitoneal hemorrhage which responded well to surgical drainage with a subsequent uneventful recovery. The only other serious complication was that reported by Alwall[2] in which the patient in oliguria and with apparently only one functioning kidney (left kidney hypoplastic) went into shock following the puncture biopsy and subsequently expired. No excessive bleeding was encountered in this case.

Another possible complication, the introduction or dissemination of infection, has not as yet proven to be of consequence. Muehrcke[16] cites the unpublished data of Kipnis in which needle biopsies were performed on cases of acute and chronic pyelonephritis without undue morbidity other than fever in a few cases for a day or two after the biopsy.

The criticism that the biopsy specimen may not be representative has, as yet, not proven tenable in the diffuse renal diseases. In those cases in which correlation has been made between the biopsy sample and subsequent sections of the kidney at autopsy, good correlation has been the universal result.

PRECAUTIONS

The selection of patients should be limited to those who can cooperate effectively and who exhibit none of the contraindications stated. The prone position technic would seem to provide a higher yield of successful biopsies and perhaps some increased hemostasis. Muehrcke attributes much of his biopsy success to proper localization of the kidney by a fine exploring needle prior to the actual biopsy needle insertion. After biopsy the patient should be watched carefully for evidence of shock, abnormal bleeding, pain or temperature elevation.

CONTRAINDICATIONS

The following conditions are considered to contraindicate renal needle biopsy: malignant tumor of kidney; bleeding tendency; the presence of only one kidney; oliguria with marked and increasing azotemia; severe calcific atherosclerosis; perinephric abscess; hydronephrosis or pyonephrosis; focal renal disease and, finally, any uncooperative patient.

SUMMARY

1. Needle biopsy of the kidney is a procedure which, though not new, has only recently begun to gain the widespread recognition it deserves as a diagnostic aid in the management of non-neoplastic renal disease.

2. The danger of implantation metastases is stressed. Such a possible complication contraindicates this diagnostic procedure in malignant neoplasms of the kidney.

3. Four cases are described wherein renal needle biopsy provided definite diagnosis, ruled out potentially reversible renal disorders and aided in a more rational approach to therapy.

4. The utility of this procedure has been demonstrated by various investigators in the nephrotic syndrome, nephrocalcinosis, diabetic nephropathy, amyloidosis and the acute oligoanurias. Not only does histopathologic evaluation of the biopsy specimen provide a more exact diagnosis of the renal disease process, but it often aids in more accurate determination of prognosis. The biopsy findings may at times prove of value in selection of therapy particularly in those cases in which ACTH therapy or dialysis is being considered. A diagnostic premium has been encountered in several instances in which occult renal infections have been discovered by culture of renal biopsy material. Finally, it is expected that tissue samples obtained by this procedure will be valuable in future histochemical, cytologic and anatomic investigations.

5. Most complications have been minor and have included local pain of short duration and universal, usually transient, microscopic hematuria. Only rarely has there been sufficient hemorrhage to require blood transfusion. The introduction or dissemination of infection has not, as yet, proven to be a real difficulty.

6. In more than 400 reported cases of renal biopsy, there has been but one death attributable to the procedure. Unfortunately, Case 3 of this report must be included as an instance in which renal biopsy at least contributed to the patient's demise.

7. Several of the more important precautions are considered and include selection of cooperative patients, proper positioning of the patient and accurate localization of the kidney.

8. Contraindications to renal needle biopsy include: malignant neoplasm of kidney; bleeding tendency; a single functional kidney; oliguria with marked and increasing azotemia; severe calcific atherosclerosis; perinephric abscess; hydronephrosis or pyonephrosis; focal renal disease, and any uncooperative patient.

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A liberal education may be had at a very slight cost of time and money. Well filled though the day be with appointed tasks, to make the best possible use of your ten talents rest not satisfied with professional training but try to get the education if not of a scholar at least of a gentleman.—*Sir Wm. Osler*

Diabetes Mellitus

Pitfalls and Aids in Diagnosis

G. B. LEMMON, JR., M.D., *Springfield*

IT IS THE OBSERVATION of most physicians who are interested in diabetes mellitus and deal with numerous diabetic patients, that the diagnosis of this disease is all too frequently missed or made erroneously by a great many medical practitioners. A statistical study[1a] which indicates this is a report of a follow-up investigation of individuals found to have glycosuria in a detection drive in Washington, D. C. Of more than 2,000 urines tested 88 per cent of persons who showed glycosuria reported that they had subsequently consulted a physician. However, of these, 2.9 per cent were given no follow-up laboratory studies at all and 49.5 per cent had only a single recheck urinalysis. This means that more than 50 per cent received substantially no investigation whatever by their doctors. Only 8.6 per cent had glucose tolerance tests, and many of these may have been performed under unsatisfactory conditions. If anything, this experience in the District of Columbia would probably be a better-than-average sampling of the nationwide standards. Therefore, consideration of aids in diagnosing or ruling out diabetes seems most appropriate.

As is true in many diseases, a most important aid in diagnosis is "a high index of suspicion." It must be remembered that reliable estimates place the incidence of diabetes in the general population at approximately 2 per cent,[2a] which makes it a relatively common disease. After the age of 50 the incidence rises sharply; one study indicates that one out of every six women past 65 is diabetic. There is a strong, though recessive, hereditary tendency; children of one diabetic parent have a one in ten chance of inheriting the disease and if the other parent has a close family history of it, one in four. If both parents are diabetic, all children will develop it if they live long enough.[2b] Obesity, of course, is an important factor; it increases the likelihood of diabetes developing ten to twelve times. Especially, obese women who have large babies are likely candidates, and glycosuria in pregnancy is often the forerunner of overt diabetes.

Some symptoms of diabetes are classical and well known, namely; polyuria, polydipsia, polyphagia, weight loss and pruritus vulvae. However, others are more subtle and less generally known, but actually more important in that they may point to the diagnosis at an earlier stage of the disease when it may be possible to prevent development of severe disease by inaugurating treatment early. Some of these symptoms are: blurring of vision and rapidly changing refractive error (due to changing lenticular fluid pressure), diplopia (due to ophthalmoplegia from neuritis of the third, fourth or sixth cranial nerves), eruptions or pruritus of the skin, paresthesias or pain in the extremities due to peripheral neuritis, and such signs of subacute combined degeneration of the spinal cord as ataxia. The disease may be strongly suspected in normotensive premenopausal women who have coronary heart disease; indeed, any evidence of premature arteriosclerosis suggests the possibility of diabetes as, after all, this is the principle effect of the disease aside from the symptoms springing directly from hyperglycemia or acidosis. Lastly, a sign which should raise suspicion of diabetes is one which is self-evident and yet so often ignored—the finding of sugar in the urine, even in small amounts. Glycosuria should be considered due to diabetes until proved conclusively not to be.

Having then suspected the presence of diabetes, how does one determine whether to tell the patient that he does have an incurable disease which he must fight the rest of his life or that he can breathe easily because he definitely does not have it? The first point to be made is the futility of urine tests and fasting blood sugar determinations as certain evidence, except that a fasting level above 160 mg. per cent is sufficient proof of diabetes. No further studies are necessary in that case.[3] Urine tests and normal fasting blood sugars prove nothing. A survey of office records revealed the correlation between blood sugars and urines passed at the time blood was drawn, as shown in table 1. It must be remembered that some or most of the positive urine tests with blood levels below 160 were because the urine had been in the bladder since the last meal was eaten and merely reflected an immediately post-prandial transitory hyperglycemia. It must also be remembered that these "low kidney thresholds" for sugar may be the renal glycosuria which, strangely enough, is commoner in relatives of diabetic persons than in the general population[2c] (although most of the blood sugar determinations tabulated were on known diabetic patients). In any case, the point to be emphasized is that in thirteen instances glycosuria occurred with blood levels below that usually considered to be the kidney threshold for sugar, 160 mg. per cent, and five of sixty-two blood levels in the 160 to 180 range were accompanied by three and four plus urine reactions. The findings of sugar in the urine does not prove the presence of diabetes. This is particularly true in children.

TABLE 1

CORRELATION OF GLUCOSE CONTENT IN BLOOD AND URINE

*Blood Sugar Ranges**	*Negative Urine***	*Trace*	1+	2+	3+	4+
Under 160 (294 tests)	281 (95%)	5 (2%)	1 (0.5%)	3 (1%)	3 (1%)	1 (0.5%)
160-180 (62 tests)	50 (80%)	4 (7%)	3 (5%)	—	3 (5%)	2 (3%)
180-200 (41 tests)	34 (84%)	3 (8%)	1 (2%)	1 (2%)	1 (2%)	1 (2%)
200-225 (29 tests)	18 (62%)	3 (10%)	3 (10%)	—	2 (8%)	3 (10%)
225-250 (35 tests)	12 (34%)	4 (11%)	5 (14%)	2 (6%)	3 (9%)	9 (26%)
Over 250 (66 tests)	5 (8%)	4 (6%)	7 (10%)	5 (8%)	15 (23%)	30 (45%)

* Somogyi-Nelson method.
** Clinitest method.

More important is the apparent corollary conclusion from these figures that a negative urine test does not necessarily indicate a normal blood sugar —or at least one below 160. Of the 103 tests in the 160 to 200 mg. range, eighty-four urines were negative, and of those over 200 mg., which would generally be considered certain to cause sugar to spill into the urine, thirty-five of 130 were accompanied by negative urines. (A few, not indicated specifically, were with blood sugars of more than 300.) In one series of 500,000 screening blood sugar tests,[4] the positives followed with glucose tolerance tests showed no glycosuria in 20 per cent of those with grossly abnormal curves, and in 42 per cent of those with borderline curves. In short, in establishing a diagnosis of diabetes and in managing a disease in which normoglycemia should be the goal of treatment, negative urine tests mean nothing and often only give a false sense of security. This is particularly true in patients past 50 who in general have a higher renal threshold for sugar, a result of increasingly impaired kidney function with age.[2d]

Another unreliable indication of the absence of diabetes is the normal fasting blood sugar. Many diabetic persons have normal fasting levels in the morning with elevated levels later in the day. A recent patient of mine who had a trace of sugar in the urine had a normal fasting figure, 119 mg. per cent, but one, two and three hour determinations of 227, 232 and 180, a diabetic curve. As previously stated, if the fasting level is definitely elevated, the diagnosis is made and no further studies are needed. Generally speaking, however, fasting blood sugars are useful in following known diabetic persons but should not be used as a diagnostic tool. It might be mentioned that a tolerance curve of impaired glucose metabolism is one which has levels above 175 mg. per cent at one half to one hour and is not normal in two to three hours.[3]

A further pitfall to be avoided is performing blood sugar determinations following a period of restricted diet. Conn[5] has shown that this leads to false positive results, as it impairs metabolic handling of glucose temporarily by presenting the large test breakfast or dose of glucose when the organism is unused to it. Three hundred grams of carbohydrate should be taken daily for at least three days to insure standard conditions for a test. A recent example of this error in my own experience was that of a young man who in an insurance examination was found to have glycosuria and whose glucose tolerance curve was equivocal after a week's sharp restriction of carbohydrate. The figures were 141 mg. per cent fasting, 153 in one hour, 145 in two hours, and 123 in three hours—an elevated fasting level and a borderline three hour figure. He was referred for management of diabetes and a repeated curve after a standard high food intake for three days was 108 fasting and 126, 174 and 80 at one, two, and three hours, a normal result.

A test I have found most useful in investigating the possibility of diabetes in patients with mild glycosuria, symptoms suggestive of diabetes or a family history of diabetes, is the post-prandial screening blood sugar devised by Wilkerson and Heftmann and sold by the Eli Lilly Company.[6] The test can be done painlessly, quickly and inexpensively—so good patient cooperation is assured. It can be done easily by one with no laboratory training. This is performed two to 2½ hours after a breakfast containing 100 grams of carbohydrate and after the three days of 300 grams of carbohydrate intake. A mimeographed sheet of instructions is given the patient to try to assure these conditions. The test gives results merely as above or below a 130 mg. level and a 180 mg. level and is about as accurate for those levels as the Somogyi-Nelson procedure.[7] (The Folin-Wu test is generally considered unreliable because it does not eliminate non-glucose reducing substance.) If the blood sugar is below 130 mg. two hours after the test breakfast, diabetes is excluded. If it is above 180, the diagnosis is established. For those falling between 130 and 180, a glucose tolerance test is necessary, which can be done in the next day or two, maintaining the high carbohydrate intake. If the level is above 180 but a urinalysis reveals no acetone and therefore no acidosis, there is no emergency and the patient may be tried on diet for at least a week before the exact blood sugar need be determined and a tentative decision made as to whether or not insulin will be necessary.

Another simple and rapid method of blood sugar determination, using Galatest reagent, has been described.[8] I have had no experience with that procedure but it appears to be practical and useful.

Certain procedures have been devised to detect latent diabetes, some simple and practical, some purely experimental at present. Of a thousand patients who were given 75 grams of glucose and who voided two and one half hours later, 191 showed glycosuria; seventy had glucose tolerance tests with only twenty-one negative results.[9] Eighteen had diabetic curves and thirty-one showed "possible impairment of glucose metabolism." In another study,[5] 19 per cent of 152 non-diabetic relatives of diabetic persons were found to have diabetic glucose tolerance curves; those with normal curves were then given 100 to 125 mg. of cortisone and of these 24 per cent also had positive tolerance tests. Control studies revealed only 3 per cent incidence in cortisone-treated patients with a negative family history. The simple administering of sugar and of cortisone, then, could be used by an practitioner to bring out hidden diabetes. A test which may in the future prove useful is the response to three units of glucagon-free insulin at two, four, six, twelve, twenty-four and thirty minutes, which reportedly reveals impaired responsiveness in diabetes when the tolerance test is normal.[10] (Glucagon is the hyperglycemic-glycogenolytic factor in insulin; it enters into glucose homeostasis and its removal from insulin leaves only a hypoglycemic effect.) An intravenous glucose tolerance test, injecting 25 grams of glucose in four minutes and obtaining capillary specimens every eight minutes over a sixty-four minute period is said to give a straight-line relationship in diabetes and is unaffected by gastrointestinal motility and absorption.[11]

A word might be said of the conditions in which impaired glucose metabolism may be present temporarily: thyrotoxicosis, pheochromocytoma, administration of epinephrine and corticosteroids, emotional states, alimentary disturbances, meningitis, brain injury, von Gierke's disease and Cushing's disease.

A facet in the diagnosis of diabetes which should be emphasized is the physician's obligation to impress on the possibly diabetic patient the importance of searching carefully for diabetes. As previously mentioned, these people include relatives of diabetic persons, fat persons, women with unusually large babies, pregnant women with glycosuria and those with suggestive symptoms. It should be pointed out to them that diabetes is a vicious disease which must be ruled in or out; if present and uncontrolled, it leads to such things as blindness, strokes, heart attacks, uremia and amputations, but, if it is diagnosed early and regulated well, is actually little threat to the patient. I urge all obese patients and relatives of diabetic persons to have at least a screening blood sugar procedure annually, done under the standard conditions outlined. Others often must be studied repeatedly over several months' time in order to reach a conclusion as to the presence or absence of the disease. In summary, the role of the physician in diabetes detection was well stated by Wilkerson:[1b] ". . . the clinician's preventive medicine approach is to the individual in his community—that is, to his private patient." He must be alert to the possibility of diabetes in every patient and apply reliable diagnostic methods when there is even the least suspicion of its presence.

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The tenets of rugged individualism and thrift, as well as the national economy, were dealt a staggering blow by extravagant exhortations and revolutionary legislation initiated nearly a quarter of a century ago. Since then the proponents of governmental paternalism have so multipled and become so indoctrinated by experience that the pattern of private enterprise is being severely tested. What a difference from the philosophy of a nation born into independence, reared on hard work and thrift, where personal debt was a disgrace and any question of governmental solvency was viewed with misgivings!

The issue of socialized medicine is ever present. With the members of the profession recorded against such an issue, their house must continuously be well ordered and they must be united, assertive and persuasive since the public will continue to scrutinize their activities from the point the view of future Government support and, *ad eundem*, the regulation, if not the control, of medicine.—*Irving J. Walker, M.D.*

Ureteral Injury in Pelvic Surgery

ROBERT I. PFEFFER, M.D., *St. Louis*

THE INCIDENCE, diagnosis, prevention and treatment of ureteral injury will be discussed from the gynecologic point of view.

Probably the first reported repair of ureteral injury occurring during pelvic surgery was by Berard in 1841.[3] In 1869 Simon performed a cutaneous ureterostomy following severance of the ureter during ovariectomy and, in 1895, forty cases of ureterovaginal fistulae following vaginal hysterectomy had been reported.

ANATOMY

The ureter is a remarkable organ. It will heal if given a reasonable opportunity and peristaltic activity will continue in spite of a circumferential scar.[5]

The blood supply is from a peri-ureteral plexus which is supplied by long branches from the aorta and iliac vessels, and by short branches from the ovarian, uterine and vesical arteries. Disturbance of this arterial plexus during radical hysterectomy can cause fistulae.

The four danger zones of ureteral injury are: (1) The point at which the ureter crosses the iliac vessels. (In 1950 Beneventi described transection of the ureter at this area following a currettage with perforation of the uterus.) (2) Ovarian fossa. (Especially when there are adherent adnexal masses such as in endometriosis, inflammation or carcinoma.) (3) The point where the ureter is crossed by the uterine vessels. (4) The point where the ureter crosses the vaginal artery, since it is only about 1.5 cm. from the lateral vaginal fornix.

Graves, a Boston urologist, described a case in which a presacral neurectomy specimen was found to contain a segment of ureter. The dysmenorrheic patient was reopened and a direct anastomosis was done. He reported that the ureter, the patient and the gynecologist all made a satisfactory recovery.

INCIDENCE OF URETERAL INJURY

Benson and Hinman state that in spite of the greatest of care and skill, severance or occlusion of the ureter and postoperative fistulae formation has always occurred and probably always will. They feel that the increased use of vaginal hysterectomy and radical hysterectomy will cause more urinary tract injuries in the future.

Interestingly, it is not the surgical tyro who injures the ureter. In twenty-six ureteral injuries studied, 35 per cent were caused by board certified or qualified gynecologists, 35 per cent by general practitioners, and 30 per cent by "excellent" general surgeons.[8] At the University of California Hospital from 1938 to 1952, sixty-two urinary tract injuries occurred, and in all instances the operators were certified gynecologists or senior residents.[2]

It is the consensus that more injuries occur than are recognized or reported. Newell asked the pathologist at Barnes Hospital to pay close attention to the ureters during autopsy in patients who had previously had hysterectomy, and six cases of unsuspected hydronephrotic atrophy due to ureteral stricture were discovered.[3]

St. Martin and his associates followed all major gynecologic procedure performed at the Shreveport Charity Hospital for several years to discover unsuspected ureteral injury. Fourteen cases were found, eight of which were asymtomatic. It is believed that there is probably an incidence of undiscovered ureteral injury of about 0.5 per cent. In summary, if one includes those cases of silent atrophy of the obstructed kidney, there is probably an incidence of about 1 per cent of ureteral injury during major pelvic surgery (see table 1).

The primary operations complicated by ureteral injury in order of frequency are: radical hysterectomy, abdominal panhysterectomy, abdominal supracervical hysterectomy, vaginal hysterectomy, salpingo-oophorectomy, anterior culporrhaphy, and radical operations for carcinoma of the rectum and rectosigmoid.

The mortality from ureteral injury is high according to Goldstein of Baltimore[10] who reported 800 ureteral injuries with a 5 per cent mortality from unilateral injury and a 30 per cent mortality from 160 bilateral injuries. However, in cases discovered and treated early the mortality is low.

DIAGNOSIS OF URETERAL INJURY

In pelvic surgery the grave fault lies not so much in the injury of the ureter but in the failure to recognize that it has occurred. The obstruction which follows stricture of the ureter is serious because it affects the kidney and extravasation of infected urine may lead to irreversible pathologic changes. The most common postoperative ureteral injury in gynecologic surgery is incontinence from a ureterovaginal fistula. By the time it is recognized, infection is present; therefore, successful repair frequently is protracted over a long period of time and sacrifice of the kidney may be necessary. Ureteral fistulae have developed in ureters which were intact but had been clamped momentarily during surgery.[15] Experimentally, in dogs, strictures occur after only one minute of clamping the ureter.[4]

After major abdominal surgery the course of the

TABLE 1

Author	*Year*	*Number of Cases*	*Operation*	*Percentage Injury*
Wertheim[3]	1900	500	Radical hysterectomy	10
Sampson[3]	1902	995	Major gynecological operations	1.5
Newell[3]	1939	3,144	Hysterectomies	0.5
Rusche[3]	1940	38,369	Gynecological operations	0.05
Wallingford	1941	3,750	Complete hysterectomies	0.13
Halloway[4]	1950	4,491	Major gynecological operations	0.2
Robinson[10]	1953	?	Wertheim hysterectomies	8-16 est.
St. Martin	1953	332	Major gynecological operations	2.42
St. Martin	1953	20	Wertheim hysterectomies	30
Falk	1954	6,309	Benign gynecological conditions	0.05
Conger	1954	2,290	Major pelvic operations	0.5
Benson	1955	137	Wertheim hysterectomies	11
Benson	1955	6,211	Major pelvic operations (458 C. Sections)	1

ureter should be traced. It can be picked up at a point near the origin of the hypogastric artery, medial to that artery. If there is doubt about its integrity, dilute methylene blue or indigo carmine should be injected into the ureter and extravasation or obstruction noted. If obstruction is noted, a No. 5 or 6 ureteral catheter should be inserted through a short longitudinal incision in the proximal ureter and the point of obstruction identified and repaired.

Postoperative diagnosis varies with the injury.

1. Unilateral ligation without fistula may be asymptomatic, but usually is associated with flank pain and fever.
2. Unilateral ligation with fistula is usually associated with flank pain and sepsis which disappears, then is followed by a constant dripping of urine from the vagina despite normal filling and emptying of the bladder.
3. Unilateral ligation with necrosis can cause peritonitis due to extravasation of the urine into the peritoneal cavity.
4. Bilateral ligation causes anuria.
5. Bilateral fistulae is associated with leakage of urine, but there is no urine in the bladder.

With ligation there is usually nonvisualization on intravenous urography and obstruction to the passage of the catheter during cystoscopy. In cases of fistulae secondary to stricture, one should fill the bladder with dilute methylene blue and clear urine will be noted to be leaking from the vagina. If visualization is obtained on intravenous urography, the fistulae may be seen with hydro-ureter above the stricture. The intravenous urogram may show a defect in the case of necrosis but, usually, one has nonvisualization of the kidney and ureter. Catheters may be passed through the necrotic area during cystoscopy.

PREVENTION OF URETERAL INJURY

The large majority of competent urologists feel that in difficult pelvic operations the ureters should be catheterized preoperatively. Most authors also feel that the operator should remove the ureteral catheters before the abdominal wound is closed to note whether any resistance is encountered and to observe the intactness of the catheter. If resistance is felt, the catheter should remain in place until further observations prove the intactness of the ureter. Preoperative catheterization requires a cooperative urologist who will perform this service at low cost to the patient. In group practice or charity clinics this is no problem.

Benson and Hinman believe that any patient with cancer, tumor, endometriosis or inflammation should have preoperative intravenous urography and, if any distortion of the urinary tract is discovered, cystoscopy with retrograde pyelography and preoperative catheterization of the ureters.

Levinthal[3] of Michael Reese Hospital in 1939, Mair of Glascow in 1950 and Falk and Bunkin of Beth Israel Hospital in 1954 felt that preoperative ureteral catheterization made the ureters more prone to injury by pushing them into the way of the operating surgeon. They also warned about reflex anuria and infection from the procedure. These were, however, the only dissenting opinions I found in the recent literature. In order to evaluate the objections raised by these antagonists of preoperative catheterization, Rosenfeld and Bergman selected sixty consecutive cases in which they placed No. 6 ureteral catheters and a Foley catheter, the latter to a closed drainage bottle containing sterile dilute methylene blue. When the surgeon desired to outline the bladder the nurse simply raised the reservoir above the level of the bladder and it was quickly and accurately delineated. They were always able to palpate the No. 6 ureteral catheters and felt that those who claim they cannot palpate catheters are using too small a catheter. In none of their cases were the bladder or ureter injured and in none of their cases did reflex anuria occur. The only infection was a mild pyelonephritis in a patient whose preoperative urine contained enterococci. They used prophylactic antibiotics in every case. In vaginal hysterectomies the procedure was the same except that the Foley catheter was not inserted. Wishard described a case in which preoperative ureteral catheters would have prevented three operations, six cystoscopies, ninety-three hospital days and untold suffering and expense.

Undue traction or needless denudation of the ureters and base of the bladder should be avoided.

For control of hemorrhage, rather than mass ligature, bleeding points should be isolated and secured individually. Dissecting and retracting the bladder from the anterior wall of the uterus allows the ureters to be retracted away from the operation. Cutting the posterior peritoneum above the level of the internal os allows the ureter to fall away from the operative site. Novak recommends that in large intraligamentary pelvic tumors the freer of the two sides be attacked first, cutting across the cervix and then removing the adherent mass from below upward. In radical hysterectomy the ureter must be left attached to the adherent peritoneum if one desires to preserve the blood supply of the ureter.

TREATMENT OF URETERAL INJURY

At one time, the majority of urologists felt that nephrostomy was indicated when severe ureteral injury was discovered postoperatively, either unilateral or bilateral as the case might require. They reasoned that the operation was less shocking than reopening the abdomen and could be done under local anesthesia. In the recent literature, however, deligation and anastomosis is recommended since it entails one rather than two operations, and blood replacement and antibiotics have lessened the operative risk.

Nearly all ureteral fistulae will heal spontaneously if there is no obstruction, i.e., splint and drain the ureter.

Some patients may need no treatment. For example, the six cases discovered at autopsy many years after pelvic surgery did not die of renal obstruction or peritonitis; and three of Prentiss and Mullenix patients received no treatment and made good recoveries. Their patients were asymptomatic but nonfunction was discovered by intravenous urography and ureteral constriction was confirmed by catheterization.

GENERAL MEASURES

A. Deligation.
B. Anastomosis:
  1. Uretero-ureteral.
  2. Uretero-vesical.
  3. Contra-uretero-ureteral.
  4. Uretero-intestinal.
  5. Uretero-cutaneous.
C. Decompression (a temporary measure).
  1. Tube ureterostomy.
  2. Nephrostomy.
D. Purposeful ligation of ureter.
E. Nephrectomy.

A. *Deligation.*—If after the suture is removed at the time of surgery one is fairly certain that necrosis or perforation has not occurred, a splinting catheter and extra peritoneal drainage may be all that is necessary.

B. 1. *Anastomosis, Uretero-ureteral.*—Close the defect over a splint (No. 8 urethral catheter, polyethylene tubing or large ureteral catheter) using 4-0 chromic catgut and an atraumatic needle. Although it seems contraindicated fine silk has been used instead of absorbable material.[13] The sutures should not pierce the mucosa of the ureter. A Penrose drain must be placed close to the anastomosis and brought out extraperitoneally through a lower abdominal stab wound. This drain should not touch the ureter, and is removed in about ten days. The splinting catheter is removed in from ten days to two weeks. T-tube drainage may be used.

B. 2. *Anastomosis, Uretero-vesical.*—The ureter is drawn through a stab bladder incision above the original uretero-vesical junction after it has been split in a fish-mouthed fashion. The ureter can then be fixed with 4-0 catgut sutures through all layers of the bladder. The ureter is splinted with a catheter. Several authors prefer polyethylene tubing because it does not become coated with urinary salts. Again drainage with a Penrose drain is mandatory. Graves prefers a soft rubber catheter passed through the new orifice of the bladder up to the kidney and out a suprapubic cystotomy wound. He leaves his splinting catheter in situ for three weeks. Other authors remove the catheters in from ten days to two weeks.

B. 4. *Anastomosis, Uretero-intestinal.*—This is certainly not to be done as an emergency procedure since the bowel would not be prepared and therefore is not in the realm of the gynecologist. This type of anastomosis is discussed and described in the Forum on the Ureter[14] by leading authorities on the subject and the consensus seemed to be that when an uretero-intestinal anastomosis is necessary, as in pelvic evisceration, the pouch type of anastomosis (Bricker or Gilchrist) is more effective than is uretero-intestinal or uretero-cutaneous anastomosis.

C. 1. *Decompression, Tube ureterostomy.*—A No. 10 urethral catheter is placed in the cut end of the ureter, passed to the renal pelvis and the butt end is sutured to a stab wound in the lower abdomen.

C. 2. *Decompression, Nephrostomy.*—This has been used as a life-saving procedure in cases in

TABLE 2

POSTOPERATIVE FAILURE RATE AND MORTALITY[8]

Operation for Repair	*Failure Rate Per Cent*	*Mortality Per Cent*
1. Nephrectomy	Kidney sacrificed	3.8
2. Purposeful ligation of ureter	Kidney sacrificed	25-48
3. Uretero-ureteral anastomosis	20	10
4. Uretero-vesical anastomosis	30	4.3
5. Uretero-intestinal anastomosis[14]	30	32-61
6. Tube ureterostomy	Palliative	15
7. Nephrostomy	Palliative	15

Except for the figures for uretero-intestinal anastomosis, these figures are for operations performed before 1950. In the recent literature the mortality resultant from uretero-ureteral or uretero-vesical anastomosis is practically nil.

which the patient is in poor condition due to delay in recognition of the ureteral injury; however, Prentiss and Mullenix feel nephrostomy should only be done when a patient is in good condition. They prefer a tube ureterostomy since it is less shocking and less injurious to the kidney and ureter. A Foley catheter can be used to hold the catheter in the renal pelvis.

D. *Purposeful ligation of ureter.*—This is always mentioned and condemned by modern authors since it sacrifices a vital organ and pyelonephritis results as often as "silent atrophy."

SUMMARY

I. The incidence of ureteral injury can be decreased with adequate preliminary studies of the urinary tract; ureteral catheters in all difficult or potentially difficult cases; gentle, meticulous surgery and identification of all tissue before clamping or ligating.

II. The factors necessary for successful treatment are early recognition of the injury; preservation of the kidney and continuity of the ureter; splinting of the injured ureter; temporary diversion of urine from the site of the repair when necessary; extraperitoneal drainage of injured area, and long postoperative cystoscopic observation.[9]

III. Treatment applicable to the gynecologist:

1. Ligature around or through the ureter: deligation, splinting catheter, extraperitoneal drainage.
2. Crushing injury or laceration of ureter: deligation, uretero-ureteral anastomosis over splinting catheter, diversion of urine with ureterostomy catheter; extraperitoneal drainage.
3. Excision of segment of ureter: deligation, uretero-vesical anastomosis, splinting catheter, extraperitoneal drainage.
4. Inability to find distal end of catheter and catheter too short to reach bladder without tension: deligation, tube ureterostomy. The urologist should be consulted for definitive repair.

In general, the gynecologist should not resort to nephrostomy, nephrectomy, ureterocutaneous or ureterointestinal anastomosis unless he also be a competent urological surgeon.

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Chronic Neurodermatitis: A Clinical Study

NORMAN TOBIAS, M.D., *St. Louis*

IN THIS NEUROTIC AGE, it is only natural that the skin should share with the visceral organs some manifestations of neurotic behavior. Ranking just below acne in frequency, circumscribed neurodermatitis (lichen simplex chronicus) deserves attention because it is more than a skin disease requiring a salve. It is a neurosis which must be understood and properly evaluated. Treated merely as an itchy eczema without consideration for the whole patient may result in new target areas, distrust in the physician and a train of somatic complaints.

What is circumscribed neurodermatitis? It is not a new entity but has masqueraded in the past as chronic eczema; in cases involving the ears, as fungus infections; in cases involving the anogenital areas, as pruritus ani or vulvae. Many cases have been labelled contact dermatitis of uncertain etiology. If one examines a patch on a typical area (e.g., the inner thigh) one observes a patch of thickened skin, slightly or not at all reddened in the early cases, and a brownish gray in the chronic types. At the outer zone one sees small glossy polygonal papules surrounding the central main lesion which is rough to the touch, infiltrated and dry, and its surface criss-crossed with the natural creases of the skin.

The history will tell one that the first indication of the condition was an intermittent itching, which, after several weeks, became persistent. Unable to refrain from rubbing or scratching the area, a patchy dermatitis appeared which seemed to set up a vicious circle with more intense pruritus resulting. In some cases the itching radiated to contiguous or distant areas, with or without setting up another area of neurodermatitis. Once the itch-scratch reflex is established, the slightest external impulse (bathing, warmth, sweating), emotional crises or "just thinking about it" intensifies the pruritus. After examining the lesion and listening to the patient complain of the intensity of the symptoms, it should strike the examiner that the pruritus is greatly out of proportion to the extent of the presenting dermatitis. This is one of the diagnostic features.

A study of the patient's make-up may or may not be revealing. Not all are of the tense neurotic type. Some are stoical, some are meek and others are the tired type who have carried more than their share of life's burdens.

The lesions of circumscribed neurodermatitis have a predilection for certain areas. Some observers have attempted to ascribe a symbolic significance to this fact. In the female, many cases occur on the nape of the neck (is there an object of scorn or hate giving her a "pain in the neck"?), or in the anogenital area (sexual import?), or on the ears (displeasure or incompatibility?). Any part of the cutaneous surface except the face and abdomen in either sex may be affected.

As to sex, the disease is more frequently observed in women. In this series of 125 cases, eighty were in the female, forty-five in males. Women have a lowered threshold to emotional stimuli and are more subject to increased irritability, especially during the menopause, and when employed outside the home they are subject to fatigue states.

In this series, the following sites were affected in women: nape of the neck 16; anogenital area, 13; inner thigh, 8; eyelids, 12; ankles, 1. The following sites were affected in men: inner thigh, 12; arm, 5; leg, 5; scrotum, 2; anus, 1.

Most of the cases occur in the fourth decade when responsibility and tension are at a high level: fifteen cases were seen in the 20 to 30 age group; twenty-one in the 30 to 40 group; forty-five in the 40 to 50 group; twenty-four in the 50 to 60 group, and twenty in the 60 to 70 group.

ETIOLOGY

Without entering into a discussion of the physiology of itching, it is known that the motor response to an itching skin is a spinal reflex resulting in rubbing or scratching. Minimal or physiologic itching may be controlled by will power but once the itch-scratch reflex is established it becomes cyclic or appears in waves and is then pathologic. Fatigue, boredom, external irritation, however slight, and emotional crises stimulate the weak impulses into intense paresthesia.

If one examines the predisposing causes, one first must consider the patient and his neurosis. Slow in developing, it may stem from anxiety, fatigue states, overwork, envy, worry (illness in the family), hatred (an alcoholic mate, an overbearing boss). Cancer phobia secondary to a minor trauma may also initiate chronic neurodermatitis in the predisposed. Many cases in the aged are influenced by fixation as a result of an itchy skin, a physiologic manifestation of senility. In about one third of the cases, the dermatitis was secondary to "fixation" in which the sensation of itching persisted after an original minor dermatosis (insect bites, pyoderma) was cured or disappeared. This reaction pattern may be caused by the fear of recurrence or nonacceptance of the original diagnosis.

CLINICAL TYPES

While most cases can be described as an "itchy patch of chronic eczema," papular, lichenoid (resembling lichen planus), warty and excoriated lesions are often observed. Complications include cellulitis from secondary infection, multiple areas of involvement (disseminated type), depigmentation (frequently in the anogenital types), pigmentation, excoriations, folliculitis (in the Negro) and maceration (anovulvar areas).

THERAPY

The first principle is to treat the patient as a neurotic. The physician should take ample time to question him concerning environment, occupation, domestic and financial difficulties. How does he react to emotional crises? Does he sleep poorly? A sympathetic listener instills confidence. A common sense approach to the patient's emotional problems often is rewarded with a decrease in the pruritic crises and a better response to local therapy.

The type of sedation necessary depends upon the type of patient and the location of the neurodermatitis. Anogenital types require more active sedation because of the greater intensity of the itching in this area. In the early cases, one of the tranquilizing drugs, phenobarbital, Phenergan, Benadryl, may reduce the desire to scratch. Menopausal women may get relief from an estrogen-barbiturate combination (e.g., Valestrol). In persistent cases intravenous calcium bromide, the rauwolfia drugs or sodium amytal may be effective.

Local applications must be acceptable to the patient and not be too greasy. Ointments containing local anesthetics are not to be considered because they often cause sensitization, are not absorbed by the unbroken surface and are only temporarily effective. Anogenital lesions often respond to Quotane ointment. Eyelid lesions seem to tolerate 1/10 per cent phenol in a tragacanth jelly base. In all other areas x-ray therapy is indicated to reduce the infiltration and thus control the pruritus. If x-ray therapy is not available the following ointment has been useful:

Hydrocortisone	0.5
Dernaftalan	5.0
Lassar Paste	2.0
Olive oil (if area is dry)	5.0
Hydrosorb ointment base qs ad	100

This is applied morning and night and covered with a bleached muslin dressing.

If this therapy fails, three courses are left to the physician: (1) cover the area with Elastoplast. a fixed dressing for one week; (2) order a three weeks vacation for the patient (not with relatives) away from home, and (3) an understanding psychiatrist should be called in consultation. I have heard of an occasional case in which the disease disappeared after a biopsy was made (suggestion?).

PROGNOSIS

Circumscribed neurodermatitis is primarily a neurosis. The dermatitis is provoked by psychogenic itching of central origin. Unless the emotional factors are discovered and normal behavior to tension and fatigue established, recurrences at the site or in other areas are the rule.

CONCLUSIONS

The dermatosis should be treated as a neurosis from the beginning. Local therapy without a discussion of the emotional problems and an attempt at solution will result in failure to cure the condition.

CASE REPORTS

Case 1. B. K., male, aged 68, married, had a patch of chronic dermatitis 5 by 7 cms. in diameter on the lower third of the right leg. Duration was five years. Itching was cyclic and aggravated by warmth and sweating. The patient stated that the lesion followed soon after a local injury. Behavior and the psychosomatic history were normal. After treatment was started, he admitted he had a cancer phobia. Treatment included discussion of the mechanism of the condition. Three x-ray treatments at weekly intervals and a mild tar ointment were used. Recovery was complete in twenty-six days with no recurrence to date.

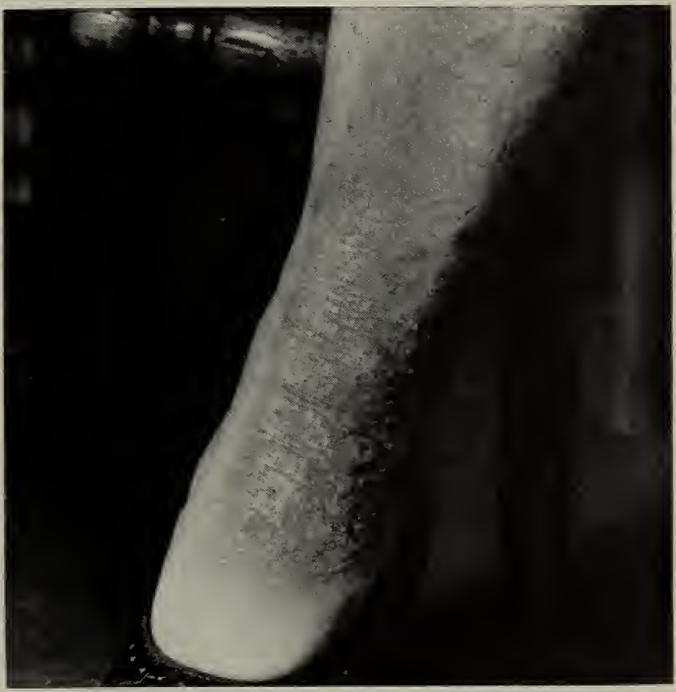

Fig. 1. Chronic neurodermatitis of ankle resulting from pruritus in a patient with a dry skin. Eczematoid changes from friction and rubbing. Note lesion is well defined.

Case 2. Mrs. M. H., aged 49, a housewife, consulted me in 1950 for a patchy dermatitis on the nape of the neck extending into the hair line. Duration was four years. At first recurrent, it was then persistent. Itching was intense. The patient had been using a phenolated petroleum jelly without relief. Quotane ointment produced temporary benefit. Phenobarbital was also prescribed but twenty-four hours later she broke out in a generalized macular eruption. Benadryl was substituted and seemed to decrease the pruritus. However, two months later she returned with a pruritus vulvae, which was also diagnosed as localized neurodermatitis. Cortef ointment used locally and Dramamine controlled the pruritus. After two weeks the dermatitis had disappeared. The lesion on the nape of the neck, however, was still present. Psychosomatic history showed that the patient's husband was an alcoholic and resented criticism. Her home life was so intolerable that she was forced to seek employment. The prognosis in this case is poor. The husband refuses to come in for a discussion of the factors that have produced chronicity in this case.

Case 3. Mrs. F. A. D., aged 60, a widow, forelady in a shoe manufacturing concern, consulted me in November 1955 for a pruritus ani. The mucosal skin was thickened, rough and excoriated. Insomnia and "nervousness" had been present for six months. Menopause was at age 38. Weekly injections of Calcibronat, tabs. Sulfeton three times a day and a mild tar ointment resulted in a cure, but three weeks later the patient presented a pruritus vulvae with lichenification of the left labium majora. No symbolic importance could be elicited as to the localization but she admitted she was afraid of losing her job to a younger woman. This persisted for six weeks until the patient was placed on tab. Serpasil 0.1 mg. three times daily. When she reported on the phone in February 1956 she stated she felt fine and has had no recurrence since.

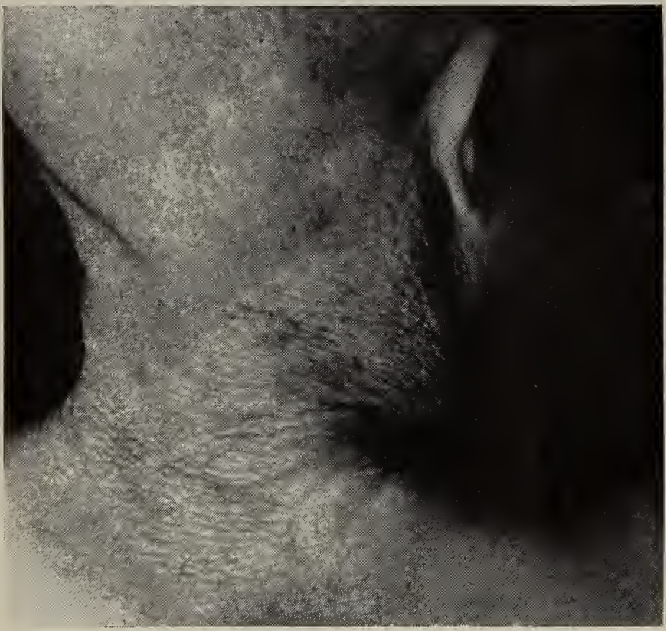

Fig. 2. Characteristic involvement of the nape of the neck. Rare in males. The exaggerated normal markings of the skin stand out.

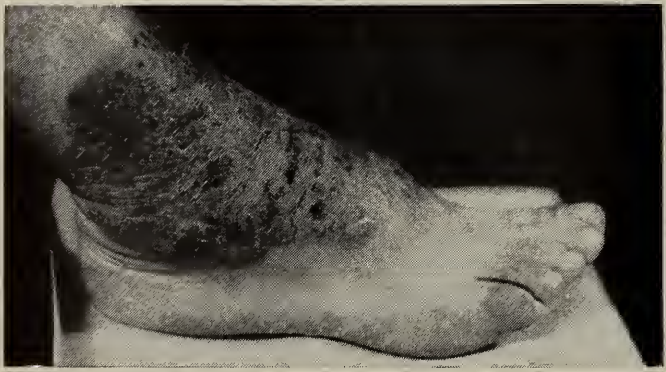

Fig. 3. Typical dry type of chronic neurodermatitis with typical rough surface.

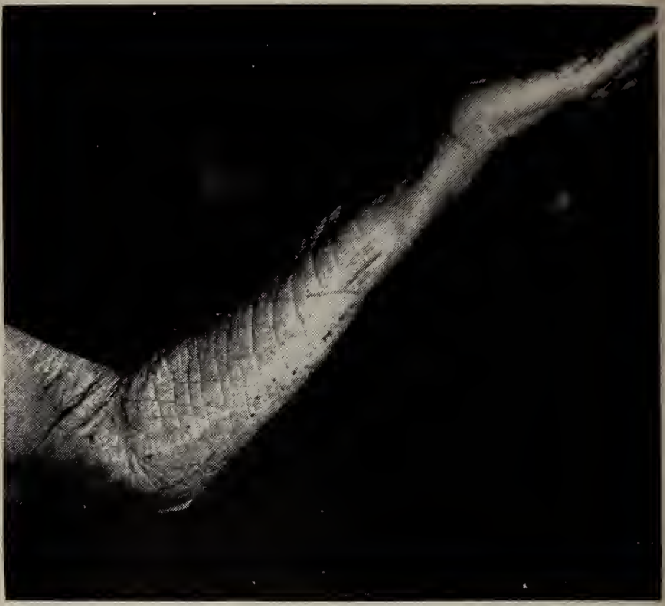

Fig. 4. Chronic neurodermatitis of arm and forearm, ten years duration. Note exaggerated creases and dry scaling.

Case 4. Mrs. E. B. K., aged 53, a housewife, had had a chronic neurodermatitis of the palms and wrists for the last thirty years. Three weeks before consulting me, a flare-up occurred resulting in extreme pruritus and tiny blisters on the sides of the fingers (Pompholyx). X-ray therapy and mild sedatives with a tar ointment cleared the dermatitis within four weeks. However, three months later she developed a pruritic dermatitis in the pubic area and complained at that time of "butterflies in the stomach." The psychomatic history was that the husband had bronchial asthma and had been admitted to the hospital three times within the last three months; her aged father and mother were ill and required her help, and a sister had recently been told she had a cervical carcinoma. Sympathetic advice, removal of the husband to a nursing home, mild sedation and local antipruritics gave this woman much relief. While relapses are possible, the patient now realizes the role of her emotional instability and believes she can control her condition.

Case 5. Mrs. M. B., aged 48, housewife, consulted me in 1950 for a neurodermatitis of the eyelids. She had always been a tense person and a perfectionist. Moving into a new home caused her a great deal of anxiety because of delays. Copyronil for sedation, a mild antipruritic cream and a discussion of the emotional factors involved resulted in a cure within ten days. The condition recurred five years later at the same sites but this time she consulted an ophthalmologist in the belief that the dermatitis was caused by eyestrain. He made a diagnosis of contact dermatitis, prescribed Cortef ointment and advised her to avoid nail polish, soaps and cosmetics. However, after one month, there was no change in the condition. Examination of the upper and lower eyelids revealed thickening and slight hyperpigmentation. The temperament of the patient and the symmetrical distribution as well as the clinical appearance of the dermatitis was compatible with chronic localized neurodermatitis. She was advised to change her emotional habits, small doses of Serpasil were prescribed with Quotane ointment to be applied for the pruritic crises.

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Postgraduate Review

Dermatology: 1956 Report

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Patients with skin diseases comprise more than 15 per cent of the average general practitioners practice. The various specialists in medicine also see their share of patients with skin diseases. This paper is directed to all medical practitioners to provide them with information concerning some of the recent advances in the field of dermatology. Recent advances in the treatment of skin diseases will be stressed, but this does not minimize the great progress that has been made by new chemical and physiologic studies of the skin. These basic research advances provide the background for the development of new therapeutic agents.

ACNE THERAPY

Treatment of the average case of pustular acne still consists of dietary limitations (avoiding cokes, nuts, chocolate, excessive use of milk products), cleanliness (use of Dial soap), a peeling lotion (sulfur 6 per cent, resorcinal 4 per cent, in Calamine lotion), good scalp care, and systemic therapy. Thyroid, female hormone, vitamin A orally, and staphlococcus toxoid injections dominate the latter. Roentgen therapy in the hands of a careful dermatologist or radiologist is still the single most effective agent against moderate or severe acne cases when the patient is over the age of 15 or 16. Sulfa drugs and antibiotics occasionally are of value for the recurrent crops of pustules. Becker and Fredricks[1] found some of the newer antibiotics, particularly Achromycin and Erythromycin, as effective as Aureomycin or Terramycin but better tolerated. In private practice, however, the cost of these drugs limits their long term use.

SURGICAL PLANING FOR ACNE SCARS

This procedure was first reintroduced by Kurtin in 1952 and since then more than 4,000 patients have been treated by the wire brush method. It has certainly replaced the sandpaper technic in ease of operation, economy to the patients and better end results. This is a procedure that requires special equipment and training but it is mentioned here because of the interest it has aroused in the medical profession and laity. Drs. Blau and Rein[2] feel that this method is the treatment of choice for removing the acne pit. They do stress the following four points, however. (1) Do not promise the patient too much and, if possible, underestimate the end result. (2) Be careful in the selection of the patient as to the psychologic status and the type of scarring. (3) Take black and white photographs of all patients prior to treatment. (4) Remove the dressings as soon as possible after dermabrasion.

Most doctors who have had experience with this method feel that two or three treatments are necessary to give the final good results.

RINGWORM OF THE SCALP

Mention should be made of a prize winning article on this subject by Dr. Albert Kligman of Philadelphia.[3] His report covered extensive work on the histopathology of serially sectioned biopsy specimens taken from the scalps of experimental subjects inoculated with Microsporum audouini and Microsporum canis. This study supplies the answers to many of the clinical problems confronting the practicing dermatologists who deal with this chronic disease, especially when caused by the human type of fungus, M. audouini.

Probably the most recent Missouri epidemic of scalp ringworm infection due to M. audouini has been, and still is, in Excelsior Springs. After three years of activity the epidemic appears to be abating. Temporary, total x-ray epilation of the scalp is still the most effective treatment for this human type of fungus infection.

ATHLETES' FEET

The tools of research have been applied to the common skin disease, athletes' feet, in an effort to answer some of the epidemiologic riddles of this fungus condition. Baer and coworkers[4] have found that local resistance is the most important factor in determining whether or not athletes' feet will develop. They rubbed live fungi on the feet of volunteers and found that in the greatest majority of these subjects, the fungi could not be recovered after a short lapse of time. They concluded that the foot skin of most persons appears to have a remarkable capacity to destroy or inhibit pathogenic fungi, similar to the self-sterilizing properties of the skin against bacteria.

STEROID THERAPY

This is the era of steroids. Fortunately for pa-

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tients with skin diseases the steroids can be used to good advantage locally and orally in the treatment of many conditions.

Cortisone had essentially no value locally on the skin but hydrocortisone in ointment and lotion form proved to be effective in 1 and 2.5 per cent concentrations. The addition of antibiotics, mainly neomycin, apparently enhanced this beneficial effect. The classic paper to date on the local use of hydrocortisone was the paper published by Sulzberger and associates in 1953.[5]

A later development was fluorinated hydrocortisone in ointment and lotion form. This was found to be approximately ten times as effective locally as hydrocortisone. The strengths of the ointments and lotions tested were 0.1 and 0.25 per cent. In these strengths, however, the fluorinated hydrocortisone was found to be no more effective than 1 and 2.5 per cent hydrocortisone ointment or lotion and the cost to the patient was the same.[6]

Medicine is not static, so a new steroid, prednisolone, has come to the forefront. According to Frank and Stritzler,[7] in strengths of 0.25 and 0.5 per cent, it is not as effective as 1 per cent hydrocortisone ointment.

In summary, it can be stated that 1 per cent and 2½ per cent hydrocortisone ointments and lotions are effective remedies for many inflammatory and itching skin conditions. Since they are expensive and are therefore usually prescribed in small amounts, their usefulness for widespread dermatoses is limited. Many are realizing that the older, less expensive remedies, such as liquor carbonis detergens (L.C.D.) and other tars, sulfur, salicylic acid and ammoniated mercury, are still as effective locally, or more so, than the steroids.

Systemically, ACTH, cortisone, hydrocortisone, prednisone and prednisolone in respective doses have great value in acute widespread dermatoses (such as severe poison ivy dermatitis, itching pityriasis rosea and acute severe drug eruptions), and also in the chronic ofttimes fatal skin diseases such as pemphigus and acute disseminated lupus erythematosus.

HORMONE THERAPY OF DEEP MYCOSES

In 1952 Curtis and Harrell[8] noted that when the female hormone, diethylstilbesterol, was given to a patient for an inoperable carcinoma of the prostate, the patient's skin blastomycosis was cured. This stimulated many *in vivo* and *in vitro* studies on the effect of other hormones and stilbenes on deep fungus infections.

Dr. Lamb of Oklahoma City[9] reported three cases of deep mycoses that were treated with a combined therapy of methyltestosterone and triple sulfonamides. This combined therapy produced apparent arrest in one case of histoplasmosis and in one case of disseminated coccidioidomycosis. The third case (histoplasmosis) suffered a recurrence after one and one-half years of arrest of the disease. The dose of methyltestosterone should be above 100 mg. a day, and 2 grams a day of triple sulfonamides.

HERPES ZOSTER NEURALGIA

Most patients with shingles, particularly in the younger age group, require reassurance, soothing local therapy and a mild anodyne for the ten to twenty-one day duration of the disease. In the elderly patient the outlook for such a mild course is not the rule. A sharp, stabbing, neuritic pain oftentimes precedes the skin eruption and, in approximately 20 per cent of cases, persists for a variable length of time after the clearing of the blisters. If the pain lasts for thirty days or more then the patient has a true postherpetic neuralgia, the treatment of which is unsatisfactory. I made a controlled study of fifteen of these cases treated with ACTH, cortisone and placebos.[10] ACTH and cortisone proved effective in relief of pain in approximately 70 per cent of the cases, while the placebo was effective in 36 per cent of the cases. The dose of ACTH in the gel form intramuscularly was 40 to 80 units a day. Cortisone was begun orally with a dose of 75 to 100 mg. a day, then decreased as symptoms permitted. In severe cases I would suggest ACTH initially followed by oral cortisone or the newer steroid derivatives. In the majority of patients treated with this regime the relief was quite dramatic but in a few it was not effective.

PLANTAR WARTS

A doctor's therapeutic prowess falls before a plantar wart. To treat a plantar wart with any success at all, however, one must be sure he is dealing with a wart. Many cases thought by the patient or referring doctor to be a plantar wart turn out to be callouses. Paring off the thickened horny layers will readily reveal the brownish vascular projections of a true wart.

In adults, adequate electrosurgery to the lesion is my treatment of choice, while in young children who fear the anesthetic injection, I will treat the wart weekly with paring, an application of saturated solution of trichloracetic acid, an application of 25 per cent podophyllum in alcohol, then plain tape applied over the lesion. Preferably this tape is left on for one week. After one or two treatments maceration and blistering usually develop and this is trimmed off. This is a desired reaction and usually is sufficient to destroy the wart.

Prazak and Thomas[11] suggest a rather simple method of removing a plantar wart by curetting out the wart completely with a mastoid curette (oval, Spratt, size 1 or 00). Bleeding is stopped by pressure. This results in healing in around two weeks, whereas in my experience with electrosurgery the healing takes places in three to four weeks.

SILICONES AND SKIN PROTECTION

The protection of the skin against contact irritation is one of the great problems in the home and in industry. Shaw and Crome[12] conducted an intensive study of the available skin-protective ointments and of vaseline. They came to the conclusion that preparations containing 30 per cent silicone in petrolatum exhibited the greatest protection against soap and water and soluble cutting oils. Silicote and Pro-Derna were the two products found most effective. A word of caution, however. The use of silicone preparations should be confined to protection of the normal skin and not for therapy of inflamed skin. These agents have a tendency to irritate inflamed skin.

SYPHILIS AND THE POSITIVE BLOOD TEST

The era of seeing ten to thirty cases a day of untreated syphilis, as I saw from 1946 to 1948 in a state rapid treatment center, has fortunately passed. The problem of the patient with a positive serology is now the prominent one for the private practitioner. A careful evaluation of these cases is necessary before treatment can be begun. This includes a careful history, particularly with regard to previous treatment, a general physical directed toward evaluation of the central nervous system, cardiovascular system, eyes, skin and, finally, adequate laboratory tests such as quantitative serologic tests for syphilis and spinal fluid tests.

Assuming that the patient has not been previously treated, or has received only an occasional penicillin shot for a cold, and that the history, physical and laboratory tests point to syphilis infection, treatment would consist of 6,000,000 units of penicillin by injection over a ten day period; 1,200,000 units of procaine penicillin every other day for five injections would be a good course. If central nervous system or cardiovascular syphilis is present 9,000,000 or 12,000,000 units of penicillin would be indicated.[13]

If the patient had been treated for syphilis with penicillin and has a seroresistant serologic test that has been checked on several occasions over the last few years, treatment is not necessary. If the treatment had consisted of arsenic or bismuth, a course of penicillin therapy is warranted.

The untreated patient with the weakly positive serologic test and no history, physical or other laboratory findings relating to syphilis or other infectious diseases, such as infectious mononucleosis or malaria, presents the real diagnostic problem. These patients may have a biologic false positive reaction and it is the moral responsibility of the physician to withhold therapy until syphilis is definitely proven or disproven. In these cases the specific treponemal pallidum immobilization test[14] is of value. The test would be negative if the patient did not have syphilis. Unfortunately, however, this test is not available in Missouri.

In regard to the new treponemal pallidum immobilization test, Rein and others at the recent American Academy of Dermatology meeting in Chicago stated that the patient with a negative treponemal pallidum immobilization test and a biologic false positive serologic test might have one of the collagen diseases such as lupus erythematosus or a latent rheumatoid state.

LUPUS ERYTHEMATOSUS AND ANTI-MALARIAL DRUGS

According to the newspapers the Russians have long been rewarding themselves with undeserved medals for various "firsts." A legitimate reward however goes to a Russian by the name of Prokopchuk for being the first to use atabrine for the treatment of the chronic discoid form of lupus erythematosus. This 1940 report appeared confined to the U.S.S.R. and was not appreciated until Page of England in 1951 independently published an article on the same treatment.[15]

Atabrine, and more recently, chloroquine, have proved to be remarkable advances in the treatment of this previously highly resistant, chronic, scarring disease. Since atabrine causes a yellowish discoloration of the skin, chloroquine (Aralen) has largely replaced atabrine as the drug of choice. The usual dose of chloroquine is 250 mg. three times a day for a week and then slowly it is decreased. The usual remarkable results are seen in two to four weeks. Of course, a few cases, but a very few fortunately, are resistant to this form of treatment.

Chloroquine alone or combined with steroids has proven effective in a few cases of acute disseminated lupus erythematosus.

THE LUPUS ERYTHEMATOSUS CELL TEST

This test continues to be an important laboratory tool. It is particularly useful in diagnosing cases of acute lupus erythematosus that have no skin manifestations. Weiss and Swift[16] state that "while positive tests have been reported in a number of other diseases (and in penicillin sensitivity cases), the presence of clumping, rosettes and the typical lupus erythematosus cell may be taken as conclusive evidence of systemic lupus erythematosus." They also stated that "all cases of rheumatoid arthritis should have frequent lupus erythematosus tests performed, especially if they show even minimal symptoms referable to lupus erythematosus."

PSORALEN TREATMENT OF VITILIGO

It would be fine if one could report on an effective drug for treating vitiligo. Further tests have been done on 8-methoxy-psoralen. This chemical is one derivative of a Nile Delta fruit that has been used since the 13th century by the Egyptians for the treatment of vitiligo. George and Burks[17] studied the refined preparation when given orally and applied locally. Fairly good results were obtained by either method. Severe burns were avoided by using small concentrations of the ointments. In my opinion, however, further investigative work is necessary before this drug can be put to practical use, but an effective treatment for this annoying, disfiguring disease may well be in the offing.

RESPERINE IN DERMATOLOGIC THERAPY

Rein and Goodman[18] treated sixty patients with various dermatoses with resperine (Serpasil) for one month. Each patient took 1 mg. daily in divided doses. Thirty of these patients were further maintained for an additional month on placebo therapy.

Forty of the sixty patients who received the Serpasil experienced definite relaxation, tranquilization and slept better. Side effects were not prominent and included nasal congestion, increased appetite, depression, dreams, nocturia, dyspnea, weakness and nausea. They made no statement regarding the effect of the reserpine on the dermatosis of the patient under treatment. A significant number of the control patients did not have the beneficial effects noted during active therapy with reserpine.

SELSUN SUSPENSION FOR DANDRUFF

A shampoo with selenium disulfide has been used now for more than four years as a treatment for dandruff of the scalp. I personally have prescribed the shampoo for more than 500 cases of this condition and have not noted any evidence of toxicity or allergy. Others have had as extensive or more extensive experience with Selsun Suspension and no toxicity has been reported.

Three cases of ear dermatitis were reported by Eisenberg[19] following the use of the shampoo but since skin tests were not done using the selenium and the basic shampoo separately, it is unknown whether the reaction, presumedly allergic, was due to the selenium or the suspending agent. Recently Shapiro[20] and others found that the 2.5 per cent Selsun Suspension is no more toxic to human skin tissue cultures than the vehicle alone. Such further laboratory evidence as to the lack of toxicity of Selsun Suspension is welcome.

AMINOPTERIN FOR PSORIASIS

Aminopterin, a folic acid antagonist, retards excessive growth of epithelial cells. Since this may happen in psoriasis, aminopterin has been used successfully in treating this disease. "Aminopterin is a potentially dangerous drug" is the opening sentence of an article on this subject by Rees, et al.[21] These workers used a smaller dose than originally used and got less side effects. Their dose was 0.5 mg. daily orally for twelve to twenty days and they noted clearing or great improvement in 80 per cent of the cases so treated. The commonest toxic effects were sore mouth and erosions of involved skin. Temporary depression of the white blood cell count is of course the most serious complication but, fortunately, was not common with this dosage. This is not a form of treatment I would recommend for use, but it is mentioned here as one of the recent advances in the management of this common and distressing disease.

DERMATOLOGISTS: THE CHANGING SCENE

On a nation-wide scale these changes, advances or regressions were noted.

The March 1955 issue of *The Journal of Investigative Dermatology* was devoted to honoring Marion B. Sulzberger, Professor and Chairman of the Department of Dermatology and Syphilology, New York University-Bellevue Medical Center. As with other festchrifts, this issue was gathered without Dr. Sulzberger's knowledge and the articles were written by staff member, residents, former students and leading dermatologists of this and other countries. It was a highly suitable and complimentary issue of the journal that he first edited. After being a resident under Dr. Sulzberger I believe that one of his most outstanding abilities is that of stimulating the student's mind to go more than skin deep in reflecting on a presenting problem. Some of the most basic tenents of dermatologic research have emanated from his institution as the result of his sharp, alert, probing, questioning mind.

The year 1955 was one that noted the deaths of too many outstanding dermatologists, Paul O'Leary of the Mayo Clinic, George M. MacKee of the old New York Skin and Cancer Clinic (now headed by Dr. Sulzberger) and Dr. A. C. Roxburgh and Dr. J. M. H. MacLeod, both of England.

In Missouri, Dr. Herman N. Eisen, formerly Associate Professor of Industrial Medicine at New York University Postgraduate Medical School, was named full time head of the new dermatology division at Washington University School of Medicine. The dermatology division had recently been awarded a $400,000 Rockefeller Foundation grant to endow a program of research and training in disorders of the skin. The recognition by the Rockefeller Foundation of the value of such a grant to the field of skin disease is to be commended.

In the new four year medical school at the University of Missouri the first junior class of medical students is scheduled to receive eleven hours of lectures and twenty-seven hours of clinic demonstrations or a total of thirty-eight hours devoted to dermatology. Dr. Sodeman, Chairman of the Department of Medicine, formulated the program which is designed to train future doctors in the art and science of medicine.

The Kansas City and St. Louis Dermatological Societies held their annual meeting in Kansas City in March of 1955. There were twenty-six cases presented and dermatologists from four states attended the meeting and the dinner that followed. The proceedings of the meeting were published for the first time and appeared in the December A.M.A. *Archives of Dermatology.*

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Summit, N. J.

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President's Page

This is the first message I have written to the membership. It covers a theme that has been presented most ably by my predecessor, Doctor Buhler, on three occasions on this page. I know you will agree that the time is ripe to continue our efforts to defeat the cash disability section of H. R. 7225.

The resolution offered by the Council was unanimously adopted by the House of Delegates at our St. Louis meeting. It needs no further emphasis. It does call for action by the members. The resolution follows:

WHEREAS, House Resolution 7225, which provides in part for cash payments for totally and permanently disabled persons at age 50 as part of the Social Security Program, has been widely publicized in the medical press, and

WHEREAS, Physicians have been urged to contact members of Congress to oppose these provisions, and

WHEREAS, This legislation, after passing the House of Representatives, is now under consideration by the Senate Committee on Finance, therefore be it

Resolved, That the House of Delegates recommends that all members of the Missouri State Medical Association write personal letters to their representatives in Congress opposing this legislation.

If you have not already written, will you not do so today?

Carl Vohs M.D.

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CONTROL OF Pain

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*Bonica, J.J.; and Backup, P.H.: Northwest Med., 54:22, Jan. 1955.

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EDITORIALS

Walter S. Sewell, M.D., President-Elect

Walter S. Sewell, M.D., Springfield, was elected President-Elect of the Missouri State Medical Association at the 98th Annual Session held in St. Louis, April 8 to 11, 1956. He will serve as President-Elect until the next Annual Session, when he will be installed as President.

Dr. Sewell was born in Red Bird, Missouri, August 5, 1894. He received his preliminary education in St. James and received his doctorate of medicine from St. Louis University School of Medicine in 1921. Postgraduate training was taken in St. Louis and Elizabeth, New Jersey. In 1942 he was certified by the American Board of Urology.

W. S. Sewell, M.D.,

He began practice in St. James but moved to Springfield in 1924 and soon became active in the Greene County Medical Society. In 1937 he served as president of the Society. He served as delegate from the Greene County Medical Society to the House of Delegates for six years and since 1947 has served as the Councilor of the Eighth District. In 1954 he was elected Chairman of the Council. He was active in the Community Health League and was president of the League.

Dr. Sewell was married to Lulu Bray of St. James in 1919.

The House of Delegates selected a man who has long shown his interest and devotion to the practice of medicine.

Other officers are Carl F. Vohs, M.D., St. Louis, President, who served as President-Elect during the last year; Victor E. Scherman, M.D., St. Louis, R. E. Breuer, M.D., Newburg, and William J. Shaw, M.D., Fayette, Vice Presidents; Durward G. Hall, M.D., Springfield, and H. E. Petersen, M.D., St. Joseph, Delegates to the American Medical Association, with Guy N. Magness, M.D., University City, and J. Loren Washburn, M.D., Versailles, alternates; Joseph L. Fisher, M.D., St. Joseph, Speaker of the House of Delegates, and O. P. Hampton, M.D., St. Louis, Vice Speaker; G. Royse Bohrer, M.D., Jefferson City, reelected Secretary, and Jerome I. Simon, M.D., St. Louis, reelected Treasurer.

W. F. Francka, M.D., Hannibal, was elected Chairman of the Council, and R. O. Muether, M.D., St. Louis, was elected Vice Chairman. Councilors from the odd numbered districts, whose terms expired at the 1956 Annual Session, were elected with Donald M. Dowell, M.D., Chillicothe, reelected from the First District; R. O. Muether, M.D., St. Louis, reelected from the Third District; James W. Allee, M.D., elected from the Fifth District; Ralph Perry, M.D., Kansas City, elected from the Seventh District, and J. H. Summers, M.D., Lebanon, reelected from the Ninth District.

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[1] January, H. L. et al: Clinical experience with tetracycline. *Antibiotics Annual* 1954-55, p. 625.

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Missouri Medical Meetings

Annual Meeting Missouri Academy of General Practice, Governor Hotel, Jefferson City, Oct. 24, 25, 1956.

St. Louis Pediatric Society—second Thursday of each month, September through May at Medart's Restaurant, 8:00 p.m.

Component Society Meeting Dates

Audrain County Medical Society—second Thursday of each month.

Barton-Dade County Medical Society—third Wednesday of each month.

Benton County Medical Society—meets only on call.

Boone County Medical Society—first Tuesday of each month.

Buchanan County Medical Socitey—first Wednesday of each month.

Butler-Ripley-Wayne County Medical Society—first Wednesday of each month.

Callaway County Medical Society—third Thursday of each month.

Cape Girardeau County Medical Society—first Monday of each month.

Chariton-Macon-Monroe-Randolph County Medical Society—second Thursday of each month September through May.

Clay County Medical Society—last Tuesday of each month.

Clinton County Medical Society—meets only on call.

Cole County Medical Society—third Tuesday of each month.

Cooper County Medical Society—first Monday after the 15th of each month.

Dallas-Hickory-Polk County Medical Society—first Wednesday of each month.

Dunklin County Medical Society—third Tuesday of each month.

Franklin-Gasconade-Warren County Medical Society—last Tuesday of each month at the St. Francis Hospital, Washington, at 12:30 p.m.

Grand River Medical Society (Caldwell-Carroll-Livingston, Grundy-Daviess, Harrison, Linn, Mercer, DeKalb)—second Thursday of each month.

Greene County Medical Society—fourth Friday of each month.

Henry County Medical Society—meets only on call.

Holt County Medical Society—meets only on call.

Howard County Medical Society—meets only on call.

Jackson County Medical Society—fourth Tuesday of each month execpt June, July and August, at auditorium of General Hospital No. 1.

Jasper County Medical Society—second Tuesday of each month, September through May.

Jefferson County Medical Society—meets only on call.

Johnson County Medical Society—meets only on call.

Laclede County Medical Society—second Monday of each month at 6:00 p.m., at the Louise Wallace Hospital, Lebanon.

Lafayette-Ray County Medical Society—second Tuesday of each month at 7:30 p.m., at the Victory Cafe, Lexington.

Lewis-Clark Scotland County Medical Society—meets only on call.

Lincoln-St. Charles County Medical Society—third Thursday of each month.

Marion-Ralls-Shelby County Medical Society—fourth Tuesday of each month. 7:30 p.m.

Miller County Medical Society—meets only on call.

Mineral Area County Medical Society (St. Francois-Iron-Madison-Washington-Reynolds-Ste. Genevieve)—fourth Thursday of each month.

Moniteau County Medical Society—second Thursday of each month.

Newton County Medical Society—meets only on call.

Nodaway-Atchison-Gentry-Worth County Medical Society—first Monday in February, April, October and December.

North Central Counties Medical Society (Adair-Schuyler-Knox-Sullivan-Putnam)—meets only on call.

Ozarks Medical Society (Barry-Lawrence-Stone-Christian-Taney)—second Tuesday of each month September through June.

Pemiscot County Medical Society—third Thursday of each month.

Perry County Medical Society—second Thursday of each month.

Pettis County Medical Society—third Monday each month September through May.

Phelps-Crawford-Dent-Pulaski-Maries County Medical Society—fourth Thursday of each month.

Pike County Medical Society—third Tuesday of each month.

Platte County Medical Society—meets only on call.

St. Louis County Medical Society—second and fourth Wednesday of each month.

St. Louis Medical Society—first, third and fifth Tuesday of each month October through May.

Semo County Medical Society (Stoddard, New Madrid, Mississippi, Scott)—third Wednesday of each month September through May.

South Central Counties Medical Society (Howell-Oregon-Texas-Wright-Douglas-Ozark)—fourth Wednesday of each month.

Vernon-Cedar County Medical Society—meets only on call.

Webster County Medical Society—meets only on call.

West Central Missouri Society—second Thursday of each month.

Musings of the Field Secretary

School Health Workshops and Conference will be held during June, 1956, at Southeast Missouri State College, Cape Girardeau, June 5 to 7; Northwest Missouri State College, Maryville, June 18 to 20; Southwest Missouri State College, Springfield, June 21 to 23, and at Central Missouri State College, Warrensburg, June 25 to 27.

These workshops and conference are sponsored by the four colleges in cooperation with the Missouri Division of Health, various educational organizations of the state along with numerous health organizations.

The Committee on Infant and Child Care of the Missouri State Medical Association was represented on the overall planning committee for these four sessions.

It is anticipated that local doctors in the areas will be invited to participate on these programs. Other participants at these meetings will include: teachers, nurses, school administrators, guidance workers, parents, dentists, school board members, local health department workers, voluntary health organization staff members, Division of Health representatives and students.

The program at Southwest Missouri State College, Springfield, will be designated as a Conference on "Communicable Diseases." The purpose of this Conference will be to give practical, accurate information concerning communicable diseases to all members of the school community.

The program at the other three colleges will be designated "Health Education Workshops" with the theme: "For Better Health of Children in School Communities."

The purpose of these workshops is to help teachers, nurses, administrators, nutritionists, workers in governmental and voluntary health agencies, private physicians, dentists, parents and other persons responsible to play a more effective and realistic role in meeting the health needs of their schools and communities. In general, the objectives might be summed up as: (1) To provide in-service health education preparation for professional personnel and community citizens. (2) To develop an awareness of existing public health, school health and mental health problems that may exist in local communities and help participants to find ways to solve these problems. (3) To promote interest in local health resources.

As a result of the stimulation which similar workshops provided in earlier years, participants were able to make cooperative approaches to better health in their school communities.

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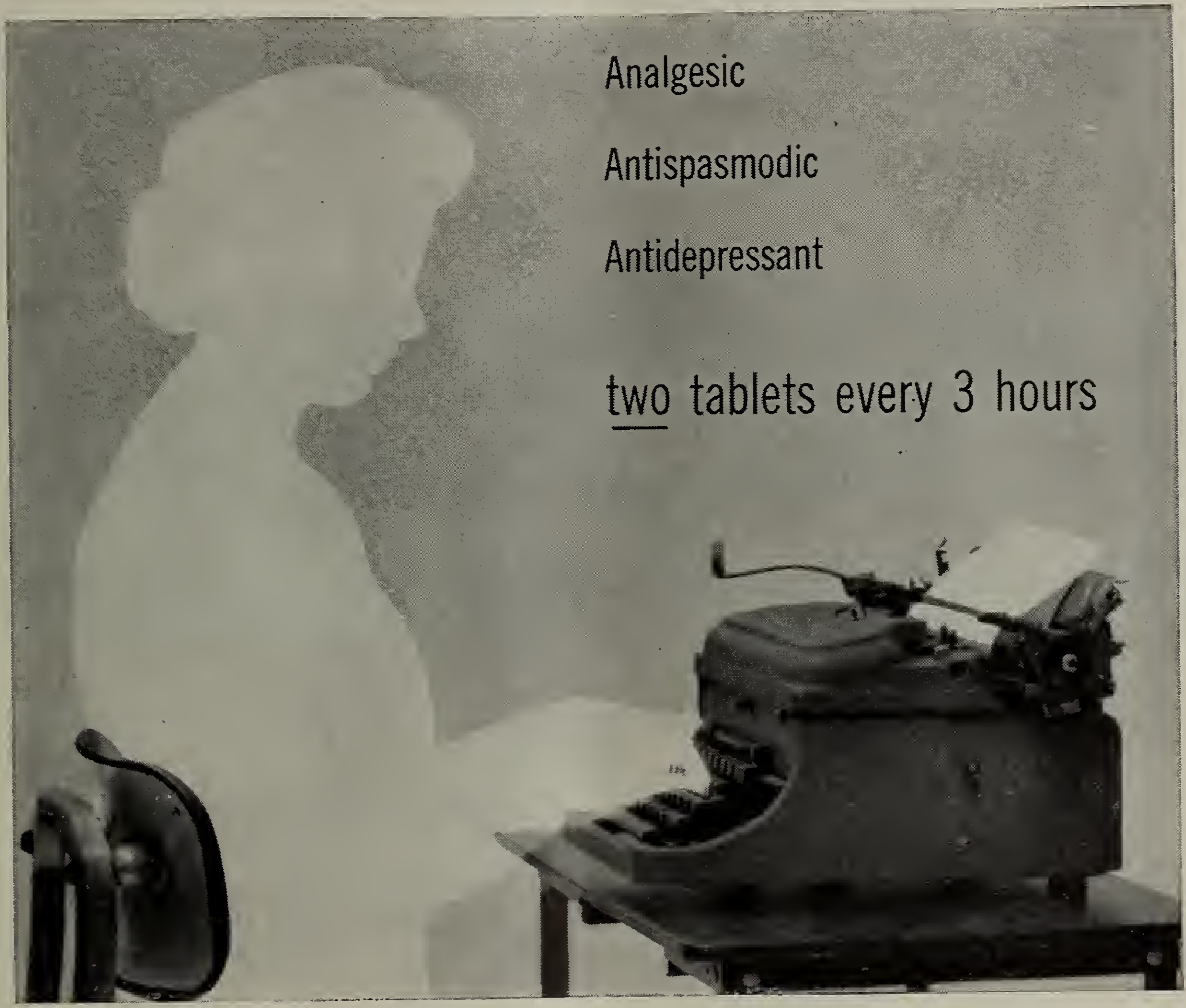

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News

The Veterans of Foreign Wars Community Service award for 1956 has been presented to **Charles H. Allen**, M.D., Independence.

Among participants in a postgraduate course in Radiology and Radioactive Isotopes at the University of Kansas in February were **Ira H. Lockwood**, M.D., **H. K. B. Allebach**, M.D., **Arthur B. Smith**, M.D., and **Samuel B. Chapman**, M.D., Kansas City.

In a panel presented April 3 at the St. Louis Medical Society on "The Recent Advances in the Treatment of Arthritis," the moderator was **Henry Rosenfeld**, M.D., and participants were **Alex Harell**, M.D., **R. O. Muether**, M.D., **Otakar Machek**, M.D., and **Jack Zuckner**, M.D., all of St. Louis.

Newly elected as treasurer of the American Academy of General Practice is **Charles E. Martin**, M.D., St. Louis.

Creighton University honored business and civic leaders for outstanding contributions to the University and their communities at ceremonies on March 23 and 24, among whom was **Emmett F. Hoctor**, M.D., Farmington.

To fill the unexpired term of the late L. E. Dean, M.D., Maryville, the Governor appointed **B. F. Byland**, M.D., Maryville, as coroner of Nodaway County.

Appearing on the first of weekly radio programs on KSGM at Perryville were **O. A. Carron**, M.D., **G. H. DeGenova**, M.D., and **R. R. Grayson**, M.D.

The St. Joseph Chapter of Hadassah gave a dinner in honor of **Jacob Kulowski**, M.D., St. Joseph, on March 19.

The first in a series of lectureships to be sponsored annually by the St. Louis University School of Medicine Chi Eta Chapter of Phi Rho Sigma Medical Fraternity, was given by Oliver H. Lowry, M.D., St. Louis, on April 5 on "The Brain, the Microchemical Challenge."

The seventh annual Dr. F. G. Thompson, Sr., lecture will be presented in St. Joseph on May 21 by William Dameshek, M.D., Boston, on "The Spleen and Hypersplenism."

Among appointments of twenty-three scholars in medical science by the Markle Foundation is Clement E. Brooke, M.D., instructor in pediatrics. The University of Missouri receives a grant of $6,000.00 a year for five years to assist in research by the appointed scholar in medicine.

The Kansas City Alumni Association of Pi Kappa Alpha fraternity recently elected **Doyle C. Whiteman**, M.D., Kansas City, president.

New officers of the Research Hospital, Kansas City, medical staff are **F. Stanley Morest**, M.D., president; **E. Kip Robinson**, M.D., president-elect; **Russell D. Shelden**, M.D., secretary, and **Ira T. Smith**, M.D., treasurer.

"Facts About Cancer" was the subject presented by **Everett D. Sugarbaker**, M.D., Jefferson City, at the March Pettis County Medical Forum.

The Columbia Lions Club had as its speaker on April 4, **William A. Sodeman**, M.D., Columbia.

NEW MEMBERS

Beckman, Donald E., M.D., Clarksville, Pike County.

Boggs, Roy E., M.D., 2601 N. Whittier Street, St. Louis. St. Louis Medical Society.

Bridgens, James G., M.D., Independence Sanatorium, Independence. Jackson County.

Burns, Thomas W., M.D., 211 Westmount Avenue, Columbia. Boone County.

Campbell, John G., M.D., 1210 Professional Building, Kansas City. Jackson County.

Ciampa, Thomas, M.D., 35 N. Central, Clayton. St. Louis County.

Fisher, Stanley D., M.D., Sedalia, Pettis County.

Fleming, Richard E., M.D., 4711 Central, Kansas City. Jackson County.

Hanes, Lee Duncan, M.D., 4635 Wyandotte, Kansas City. Jackson County.

Hershey, Falls B., M.D., 600 S. Kingshighway, St. Louis. St. Louis Medical Society.

Jick, Sidney, M.D., 539 N. Grand, Suite 601, St. Louis. St. Louis Medical Society.

Kepler, Earl C., M.D., Fulton. Callaway County.

Kovac, Albert P., M.D., 1222 McGee Street, Kansas City. Jackson County.

Lemier, Robert W., M.D., Sedalia. Pettis County.

Minninan, Robert W., M.D., 915 N. Grand Avenue, Saint Louis. St. Louis County.

O'Neal, Patricia, M.D., 4580 Scott Avenue, St. Louis. St. Louis County.

Redington, James C., Jr., M.D., 1 Tuscany Park, Clayton. St. Louis County.

Taylor, Byron H., Jr., M.D., 22 Science Street, Flat River. Mineral Area Medical Society.

Veal, Malley S., Jr., M.D., 207 N. Fifth Street. St. Charles. Lincoln-St. Charles County.

Voth, Harold V., M.D., 201 Plaza Medical Building, Kansas City. Jackson County.

Witt, David B., M.D., 8230 Forsyth, Clayton. St. Louis County.

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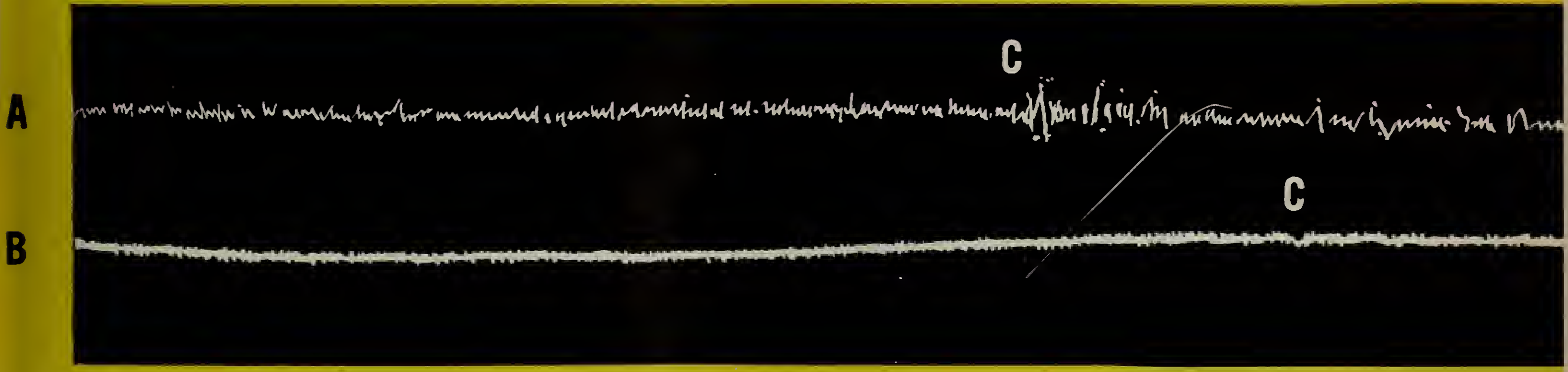

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1. Dickel, H.A., et al.: West. J. Surg., April, 1956.

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Councilor District News

FIRST COUNCILOR DISTRICT

DONALD M. DOWELL, CHILLICOTHE, COUNCILOR

Grand River Medical Society

The Grand River Medical Society met March 8 at the Strand Hotel, Chillicothe. There were twenty-five members, twenty Auxiliary members and five visitors present for the meeting. After the dinner, the Auxiliary retired to their meeting where, we understand, they had a nice program.

LACLEDE
BROOKFIELD
LAKENAN

Dr. Dixon presided.

The scientific program was presented by Dr. Ira C. Layton, internist, Kansas City, who discussed "The Diagnosis and Management of Gastrointestinal Hemorrhages," an interesting paper. Discussion then followed.

The meeting was well attended.

Field Secretary Ray McIntyre was present and urged all to attend the State Meeting at St. Louis in April.

It was reported that Dr. and Mrs. Willard Ellsworth of Cainsville were recently injured in an automobile accident. It was by unanimous vote that the Secretary was to write a letter extending the sympathy of the Society.

The minutes of the last meeting were read and approved.

There being no further business, the Society adjourned.

E. A. Duffy, M.D., *Secretary*

Clay County Medical Society

The Clay County Medical Society and its Woman's Auxiliary held a dinner meeting at the Oaks Hotel, Excelsior Springs, Tuesday evening, February 28.

The scientific program for the evening was arranged by Dr. J. E. Baird and Dr. S. R. McCracken. This consisted of an interesting and informative discussion on the "Diagnosis and Treatment of Chest Pain," by F. Stanley Morest, Kansas City.

S. O. Schroeder. M.D., *Secretary*

SECOND COUNCILOR DISTRICT

W. F. FRANCKA, HANNIBAL, COUNCILOR

Chariton-Macon-Monroe-Randolph County Medical Society

The Chariton-Macon-Monroe-Randolph County Medical Society held its regular monthly meeting Thursday evening, March 8, at 6:30 p.m. at the Woodland Hospital. Following dinner, the scientific portion of the program was given by Dr. J. Will Fleming, Jr., Moberly, who spoke on "Adrenal Hormone Therapy."

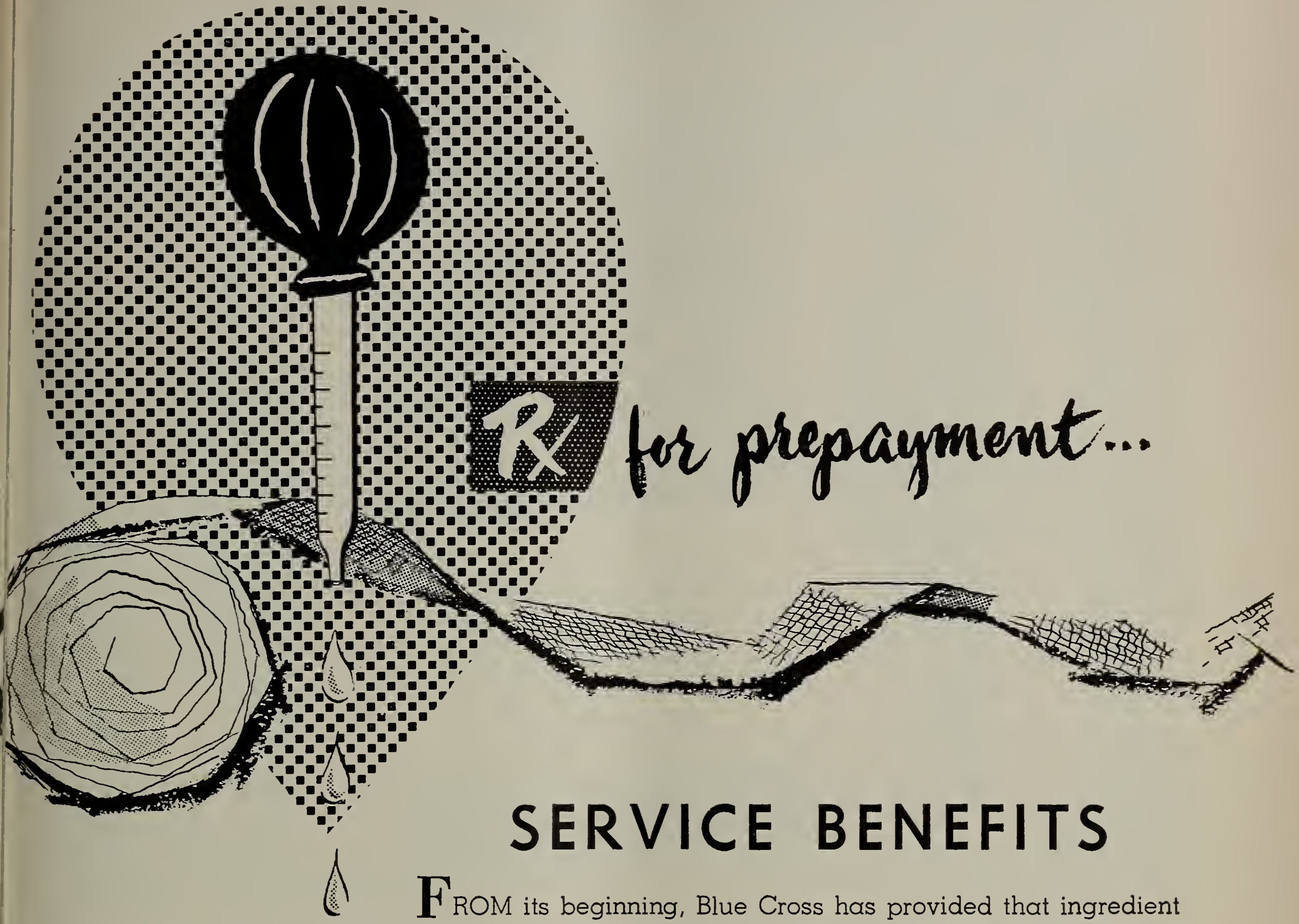
Dr. Fleming, in the course of his discussion, brought out the fact that although it has been known for a long time that the adrenal gland is essential for life, it has been only in the last twenty years that its functions have been accurately and precisely defined.

Its main functions appear to be production of steroid hormones involved in sodium, potassium and carbohydrate metabolism as well as androgen production. Even with this knowledge of its function, its full role in the treatment of various diseases is still in process of expansion and there remain many unsolved problems.

The Society endorsed the current efforts of the American Cancer Society in its attempt to detect early cancer and will cooperate with the local Cancer Society in this respect.

Members present at the meeting were Dr. F. A. Barnett, Paris; Dr. James E. Campbell, Dr. Gretchen D. Collins, Dr. D. E. Eggleston and Dr. Wallace S. Petty, Macon; Dr. F. L. Harms and Dr. G. W. Hawkins, Salisbury; Dr. G. C. Rice, Brunswick; Dr. C. C. Weger, Keytesville; and Dr. Dwight Anderson, Dr. Josephine D. Baker, Dr. W. D. Chute, Dr. C. C. Cohrs, Dr. J. Will Fleming, Jr., Dr. Thomas S. Fleming, Dr. Robert Hasson, Dr. L. E. Huber, Dr. Avery P. Rowlette, Dr. C. C. Smith, Dr. Stanley R. Szymanski and Dr. Robert H. Young, Moberly.

Robert H. Young, M.D., *Secretary*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FOURTH COUNCILOR DISTRICT

JOSEPH C. CREECH, TROY, COUNCILOR

Jefferson County Medical Society

A Called meeting of the Jefferson County Medical Society was held Friday night, March 30, in the YMCA meeting room in the City Building of Crystal City. Dr. E. J. Senn, president, called the meeting to order about 8:45 p.m. The following members were present: Drs. Bartholomew Bolgar, Thomas A. Donnell, Robert H. Donnell, Karl McKinstry, John F. Rutledge and E. J. Senn. Visitors present were Dr. J. L. Mayfield, Washington, Missouri, and Mr. Harry A. Davis, the administrator for the Jefferson Memorial Hospital.

The entire business session was devoted to discussion of the new Jefferson Memorial Hospital. Mr. Davis gave a report on progress to date, asked a staff to be formed of the new hospital, consulted about equipment and furnished copies of tentative staff constitution and by-laws and also application blanks for staff appointment.

A motion was made by Dr. Robert H. Donnell that the Jefferson County Medical Society act as staff and staff officers until such time as the constitution and by-laws can be studied, approved and adopted. The motion seconded by Dr. Mayfield, was carried.

Dr. Senn appointed the following Credentials Committee: Drs. Karl McKinstry, R. H. Donnell and J. L. Mayfield.

A list of proposed surgical and obstetric equipment was checked by Drs. E. J. Senn, J. L. Mayfield and Karl McKinstry, following which, Dr. R. H. Donnell moved that the proposed surgical and obstetric equipment be approved as listed. This was seconded by Dr. Thomas A. Donnell and carried.

After discussion concerning x-ray equipment motion was made by Dr. Thomas A. Donnell that the Dick X-ray equipment, as described in the list of equipment submitted by Mr. Davis, be purchased and installed. Motion was seconded by Dr. Bolgar and carried unanimously.

A motion made by Dr. R. H. Donnell that the Sanborn Electrocardiograph and the McKesson Basal Metabolism Machine be approved for purchase, seconded by Dr. Thomas A. Donnell, carried unanimously.

The balance of the furnishings listed for the hospital were reviewed, and it was the unanimous opinion of the staff that the only addition needed at present was a Compere Fracture Table.

The medical staff present commended Mr. Davis for the completeness of the listing of equipment and supplies—it being their opinion that nothing had been overlooked.

The meeting ended on a happy note with coffee and doughnuts to top it off.

John F. Rutledge, M.D., *Secretary*

Lincoln-St. Charles County Medical Society

Robert W. Bartlett, M.D., St. Louis, spoke at a dinner meeting of the Lincoln-St. Charles County Medical Society, Thursday night, March 8, at the Southern Air, Wentzville.

He discussed "The Differential Diagnosis and Management of Pain in the Upper Right Abdomen." An interesting informal question and answer period followed his formal presentation.

W. H. Poggemeier, M.D., *Secretary*

FIFTH COUNCILOR DISTRICT

J. LOREN WASHBURN, VERSAILLES, COUNCILOR

Audrain County Medical Society

The Audrain County Medical Society held their regular monthly meeting on March 8 in the cafeteria of the Audrain County Hospital at 7:30 p.m.

The meeting was called to order by the President, Dr. Glen Kallenbach. The minutes and treasurer's report of the previous meeting were read and approved.

It was decided to procure the Mobile State Psychiatric Team for the area to discuss their program at the June meeting.

The Society was canvassed for 50 year practitioners and those eligible had already been recognized.

The scientific program was a C.P.C. on "Dissecting Aneurysm of the Descending Aorta," conducted by Dr. William R. Platt.

The following doctors were present: Leonard L. Davis, M.D., Thomas L. Dwyer, M.D., Ernest S. Gantt, M.D., Charles L. Garcia, M.D., Benjamin N. Jolly, M.D., Glen P. Kallenbach, M.D., and Harold K. Lankford, M.D., Harry F. O'Brien, M.D., C. M. Waggoner, M.D., and Ed S. Wallace, M.D. Also present was Mr. Keyton Nixon, Administrator of the Audrain County Hospital.

As there was no further business, the meeting adjourned at 10:00 p.m.

Ed S. Wallace, M.D., *Secretary*

Postgraduate Course at Missouri University

Another one of the series of postgraduate meetings sponsored by the Missouri Academy of General Practice and the University of Missouri Medical School was held at the University of Missouri on Thursday night, March 22.

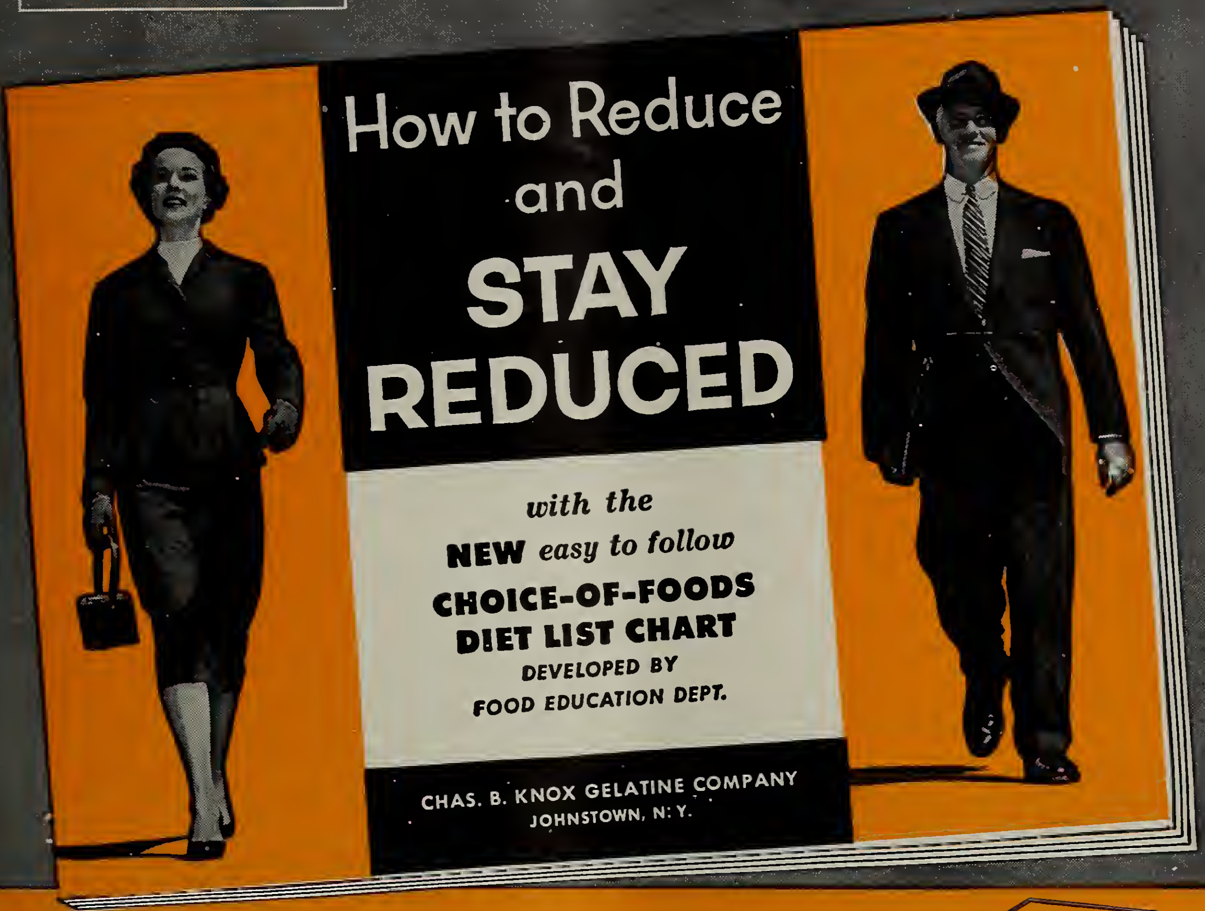
The program was as follows: Dr. Thomas W. Burns, Assistant Professor of Medicine, spoke on "The Use and Abuse of Thyroid and Anti-Thyroid Agents," and Dr. Clarence D. Davis, Professor of Obstetrics and Gynecology, discussed "Office Gynecology."

Those who attended this meeting were treated to an A-1 program.

J. Loren Washburn, M.D., *Councilor*

Central Missouri doctors attended postgraduate meeting at Columbia.

KNOX Protein Previews



How to Reduce
and
STAY
REDUCED

with the
NEW *easy to follow*
CHOICE-OF-FOODS
DIET LIST CHART
DEVELOPED BY
FOOD EDUCATION DEPT.

CHAS. B. KNOX GELATINE COMPANY
JOHNSTOWN, N. Y.

New Booklet Available to Aid
Management of Overweight Patients

KNOX
32
UNFLAVORED
GELATINE

The 1955 edition of the well-known Knox "Eat-and-Reduce" booklet eliminates calorie counting for your obese patients. This year's edition is based on the use of Food Exchange Lists[1] which have proved so accurate in the dietary management of diabetics. These lists have been adapted to the dietary needs of patients who must lose weight.

The first 18 pages of the new booklet present in simple terms key information on the use of Food Exchanges (referred to in the book as Choices). In the center, double gatefold pages outline color-coded diets of 1200, 1600, and 1800 calories based on the Food Exchanges. Physicians will find these diets easy to revise to meet the special needs of individual patients.

To help patients persevere in their reducing plans, the last 14 pages of the new Knox booklet are devoted to more than six dozen *tested*, low-calorie recipes. Please use the coupon below to obtain copies of the new "Eat-and-Reduce"[1] booklet for your practice.

---

[1] Developed by the U. S. Public Health Service assisted by committees of The American Diabetes Assn., Inc. and The American Dietetic Assn.

Chas. B. Knox Gelatine Co., Inc.
Professional Service Dept. SJ-17
Johnstown, N. Y.

Please send me____copies of the new illustrated Knox "Eat-and-Reduce" booklet based on Food Exchanges.

SIXTH COUNCILOR DISTRICT

C. G. STAUFFACHER, SEDALIA, COUNCILOR

West Central Missouri Medical Society

Thirty-seven people, including doctors and their wives, attended a dinner meeting of the West Central Missouri Medical Society, Thursday evening, March 8, at Jack and Emma's Cafe, Harrisonville.

The evening festivities began with a social hour, dinner and then the scientific program which was under the auspices of the Missouri Academy of General Practice.

This program was presented by Warren F. Wilhelm, M.D., Kansas City, who spoke on "The Diagnosis and Management of Gastrointestinal Hemorrhages."

L. M. McCann, M.D., *Secretary*

Henry, Johnson, Pettis, Saline and Adjacent County Medical Societies

On Wednesday night, March 21, some 120 people, including doctors, their wives and guests, held a dinner meeting at the Whiteman Air Force Base, Sedalia.

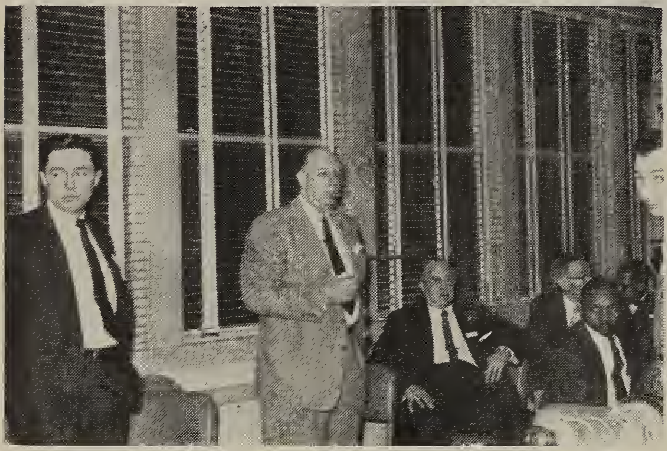
This fine meeting was a result of an invitation of the Staff of the 340th Tactical Hospital at the Air Base.

A social hour and dinner were held at the Officers' Club. The doctors then retired to the Base Hospital where they were privileged to hear an excellent discussion on "The Management of Massive Gastrointestinal Hemorrhage," by William A. Knight, Jr., M.D., St. Louis.

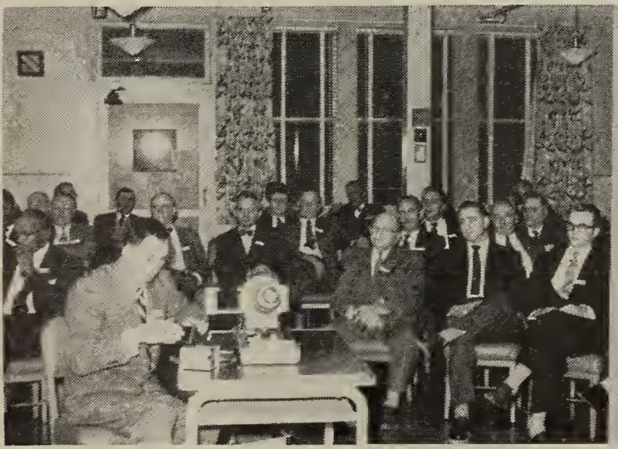
Following this presentation, a tour of the Base Hospital was conducted. In the meantime, the ladies held a separate meeting with an especially designed program.

It is not too much of an exaggeration to say that all of those present are looking forward to a similar invitation which may duplicate this occasion.

C. G. Stauffacher, M.D., *Councilor*



Dr. Hollingsworth presided and introduced the speaker.



The audience was attentive.

NINTH COUNCILOR DISTRICT

J. H. SUMMERS, LEBANON, COUNCILOR

Mid-Missouri Medical Society

The Mid-Missouri Medical Society, its ladies and guests attended a dinner meeting at the Base Hospital, Fort Leonard Wood, Thursday night, March 22. This meeting was made possible through the invitation and courtesy of the Medical Staff of the Base.

The scientific program for the evening was given by Dr. George L. Hawkins, Jr., and Dr. Joseph L. Lucido, both of St. Louis.

There were 125 people who enjoyed a full evening of festivities, including a social hour, dinner and an appropriate program.

M. K. Underwood, M.D., *Secretary*

TENTH COUNCILOR DISTRICT

BEN M. BULL, IRONTON, COUNCILOR

A postgraduate program sponsored by the Southeast Missouri Chapter of the Missouri Academy of General Practice was held at the St. Francis Hospital in Cape Girardeau on Tuesday night, March 20.

Doctors from Cape Girardeau and adjoining counties attended this session. The program was furnished by St. Louis University Medical School in cooperation with Missouri Academy of General Practice and presented a panel discussion on "Peptic Ulcer," by Drs. C. Rollins Hanlon, Don C. Weir and Edward Kinsella of St. Louis.

An informal gathering followed the meeting.

There were forty-five doctors in attendance to hear this fine program.

Ben Bull, M.D., *Councilor*

Mineral Area County Medical Society

John A. Virant, M.D., St. Louis, spoke at a meeting of the Mineral Area County Medical Society on Thursday night, March 22, at Clinic Building, State Hospital, Farmington.

"How to look at a doctor's bill" could well serve as the title for recent Parke-Davis advertisements on the cost of medical care. For they suggest to the public new ways of looking at the extraordinary *value* one buys with each dollar spent for prompt and proper medical care.

These Parke-Davis messages talk in everyday language about familiar but "forgotten" facts. Some examples: the steadily decreasing cost of curing diseases such as pneumonia, the phenomenal reduction in the death-rate for children, the substantial savings in time and income because of the shortened duration of hospital stays.

By highlighting the heartening facts of medical progress in relation to the cost of medical care, this new series hopes to help in creating a healthy, realistic public opinion on the reasonableness of medical costs.

To do this successfully, we wish the facts to have the widest possible readership. Therefore these advertisements are being published regularly in such mass-circulation magazines as LIFE, the SATURDAY EVENING POST, and TODAY'S HEALTH.

If you would like to have folder-size reprints of any of these ads for your reception room, we will be happy to supply them on request.

today's health

PARKE, DAVIS & COMPANY
Detroit 32, Michigan

He spoke on "Ear, Nose and Throat Problems in General Practice."

This program was under the auspices of the Missouri Academy of General Practice.

A. G. Karraker, M.D., *Secretary*

DEATHS

Sheldon, John, M.D., Kansas City, a graduate of the University of Kansas School of Medicine, 1933; member of the Jackson County Medical Society; aged 50; died December 9.

Elston, George B., M.D., Kansas City, a graduate of the University Medical College of Kansas City, 1907; honor member of the Jackson County Medical Society; aged 77; died February 5.

Saxton, John A., Jr., St. Louis, a graduate of Washington University School of Medicine, 1934; member of the St. Louis Medical Society; aged 49; died February 15.

Treharne, Frank E., M.D., Independence, a graduate of Rush Medical College of the University of Chicago, 1934; member of the Jackson County Medical Society; aged 48; died February 22.

Webb, Leslie R., M.D., Springfield, a graduate of the Drake University College of Medicine, 1909; member of the Greene County Medical Society; aged 73; died March 1.

Charles C. Coats, M.D., Joplin, a graduate of the Ensworth Medical College, 1909; an honor member of the Jasper County Medical Society; aged 78; died March 2.

Hansen, Walter J., M.D., St. Joseph, a graduate of the Ensworth Medical College, 1895; honor member of the Buchanan County Medical Society; aged 81; died March 20.

Westlake, Samuel B., M.D., St. Louis, a graduate of the Baltimore Medical College, 1906; honor member of the St. Louis Medical Society; aged 77; died March 27.

Missouri Medicine in Review

(Continued from page 350)

art and using the word "Doctor" or "Dr." before his name.

On March 26, at the 88th Annual Session, the House of Delegates elected Morris B. Simpson, M.D., Kansas City, President-Elect. Dr. Simpson will be installed as President in Kansas City in 1947.

Dr. Barnard C. Trowbridge, Kansas City, is now instructor in otolaryngology at the AAF School of Aviation Medicine, Randolph Field, Texas.

Dr. Wallis Smith, Springfield, addressed a District Training School of the Missouri Field Army of the American Cancer Society, on "Importance of Early Diagnosis," at Springfield on March 19. Dr. J. R. Amos, Springfield, spoke on "Service to Cancer Patients."

Dr. Everett Sugarbaker, Columbia, was guest speaker at a meeting of the Audrain County Medical Society held at the Audrain Hospital in Mexico on February 25.

...from Two Outstanding Cases

RED LABEL • BLACK LABEL

Both 86.8 Proof

Johnnie Walker Red Label
Johnnie Walker Black Label

Johnnie Walker stands out in its devotion to quality. Every drop is made in Scotland. Every drop is distilled with the skill and care that come from generations of fine whisky-making. And every drop of Johnnie Walker is guarded all the way to give you *perfect* Scotch whisky... the same high quality the world over.

BORN 1820...
STILL GOING STRONG

JOHNNIE WALKER
BLENDED SCOTCH WHISKY

ANADA DRY GINGER ALE, Inc.. New York, N. Y., *Sole Importer*

The Full-Liquid Diet pulls its own weight!

Packing good nutrition into the full-liquid diet for your patient who must stay on it a long time is sometimes difficult. But with a blender or egg beater, almost any food can be used.

Mix the same foods many ways—

Strained chicken in milk makes "bisque"—in tomato juice it's "creole." Strained liver and bacon double-times the same way.

Your patient may like cottage cheese whipped into milk flavored with chocolate and mint, or he can blend it with cranberry juice sparked with lime.

Strained carrots go in milk, broth, or pineapple juice. Flavor the milk blend with nutmeg, the broth with parsley, and the juice with cinnamon. An egg or skim milk powder may be added for a protein bonus.

Strained fruits in fruit juices do well with a squeeze of lemon or a touch of mint.

Then serve them up with dash—

Bright colored drinks look good in clear glass—pale ones in gayly painted glasses. And if a mixture looks drab, hide it in a bean pot or a round jam jar wrapped in a napkin.

Add a bright plastic straw. And for garnish, try a sprinkle of spice, a spoonful of sherbet, a dab of whipped cream, or a lemon slice hooked on the edge of the glass. Or frost the rim by dipping the glass in water, then sugar.

Of course, only you can tell your patient just which foods he can and must have. And if you feel that a glass of beer* is acceptable in his specific condition, it may provide the incentive he needs to stay within the limits you set.

United States Brewers Foundation

Beer—America's Beverage of Moderation

*pH 4.3; 104 calories / 8 oz. glass (Average of American Beers)

If you'd like reprints for your patients, please write United States Brewers Foundation, 535 Fifth Avenue, New York 17, N. Y.

COTTAGE CHEESE
Grade "A"
JUICE
CARROT

DR. McCOMAS HONORED

Arthur R. McComas, M.D., Sturgeon, was presented the Certificate of Merit of the University of Missouri Alumni Association at a luncheon meeting in St. Louis on April 11. The citation states in part "an indication of the association's pride in an alumnus who exemplifies the ideals and leadership so necessary in the preservation of American society."

A folder carrying the picture of Dr. McComas gives the following story of Dr. McComas:

"Dr. Arthur Rochford McComas has been a physician and surgeon at Sturgeon, Missouri, the place of his birth, for more than sixty-six years. Throughout this long period of service to his community, he has been closely associated with the progress of Missouri medicine.

"It is for outstanding achievement and meritorious service in medicine that the University of Missouri Alumni Association today honors Dr. McComas with the Certificate of Merit—the first to be presented by the Association to a member of the medical profession.

"When Dr. McComas was graduated from the University of Missouri the institution consisted of three buildings, and the historic Columns had not yet become a landmark. After attending the public schools in Sturgeon, where he was born August 4, 1868, he entered the University in 1884 and was graduated with two degrees in 1888. He was valedictorian of his medical school graduating class at the Beaumont Hospital Medical School in St. Louis, Missouri, in 1890. That was the year he returned to his home community to begin his long professional career. After fifty years of continued practice Dr. McComas was honored by the Boone County Medical Society at a special celebration held in May, 1940.

"While Dr. McComas has devoted his lifetime to caring for the people of his community, his efforts and influence in behalf of the advancement of medicine have been state-wide in scope. In 1910 he was appointed to the Health and Education Committee of the Missouri State Medical Association, later serving as chairman. He was active in all organized efforts toward improving medical care in Missouri.

CITATION OF MERIT

A. R. McComas, M.D.

"Dr. McComas' most significant contributions include his work to establish a State Crippled Children's Service. He has often been called the 'father' of the Crippled Children's Bill, which was introduced and passed by the State Legislature almost thirty years ago.

"In 1936-37, Dr. McComas was perhaps the prime mover in the establishment of the State Cancer Hospital.

"For more than thirty-five years he devoted his interests toward the establishment of a four year medical school at the University of Missouri. He worked hard in this direction, especially during his long service—from 1915 to 1937—as chairman of the Council of the Missouri State Medical Association.

"In 1922 Dr. McComas was elected President of the Missouri State Medical Association.

"He was particularly active in the efforts to close down 'diploma mills' in Missouri in 1922 and 1923.

"During the years between 1915 and 1940 Dr. McComas appeared many times before the State Legislature in behalf of medical education in this state.

"In 1926 he was the physician at the World's Press Conference held at Geneva, Switzerland.

"When the third year of medicine was offered at the University of Missouri in 1932-33, he was a member of the teaching staff.

"He served as a captain in the United States Army Medical Corps during World War I.

"Dr. McComas is a Fellow of the American College of Surgeons and for many years was a regular delegate to the annual convention of the American Medical Association.

"He is a visiting surgeon on the staff of the Boone County Hospital at Columbia, and has been vice chairman of its staff since the hospital was organized in 1922.

"Dr. McComas is a Knight Templar, a member of the American Legion, the Columbia Country Club and the Phi Beta Pi medical fraternity.

"For nearly a century the name 'McComas' has been associated with the profession of medicine in Missouri. His father, Dr. James M. McComas, practiced medicine in Sturgeon after having been a Union soldier with the Illinois regiment during the Civil War. The father died in 1921, at the age of 76.

"The mother of Dr. Arthur Rochford McComas was Margaret Ann Rochford before she married James M. McComas in 1867. A Columbian by birth, she was a daughter of a prominent Missourian, John Rochford, who came to Boone County in 1837. Successful in the California gold rush, about 1850, he acquired about 8,000 acres of land in Boone and Audrain counties; a portion of the site for the town of Sturgeon was donated from this land.

"In November, 1892, Dr. McComas married Fannie Mayer. She died on January 29, 1895. They had two children, one of whom died at the age of two weeks; their son, Mayer, died in 1911 at the age of seventeen.

"Dr. McComas is still active in the practice of medicine, in the affairs of his community, and in the management of his farms. He drives his own car and lives alone in the Old Family Homestead. He maintains a keen and active interest in the affairs of the University of Missouri and particularly in the University's School of Medicine.

Upjohn

Rheumatoid arthritis, rheumatic fever, intractable asthma, allergies . . .

Cortef* *tablets*

Supplied:

5 mg. tablets in bottles of 50
10 mg. tablets in bottles of 25, 100, 500
20 mg. tablets in bottles of 25, 100, 500

*REGISTERED TRADEMARK FOR THE UPJOHN
BRAND OF HYDROCORTISONE (COMPOUND F)

The Upjohn Company, Kalamazoo, Michigan

25 Compressed Tablets
Cortef*, 20 mg.
*TRADEMARK, REG. U.S. PAT. OFF.
Brand of hydrocortisone
Each tablet contains:
20
Directions for use—See accompanying insert.
The Upjohn Company
Kalamazoo, Michigan

"Dr. Rochford McComas has given years of devoted service as an able and trusted family physician to the people of Sturgeon and a community extended widely around the town. Because of his vigorous leadership in the state, the last half century has seen progress in the field of Missouri medicine which might not otherwise have been achieved."

GENERAL PRACTICE SYMPOSIUM TO BE PRESENTED

A spring scientific symposium, of interest to everyone in the medical profession in the Greater St. Louis area, will be sponsored and presented by the St. Louis Academy of General Practice on Sunday, May 27, at the Chase Hotel in St. Louis.

Speakers of national and international renown will include George Crile, Jr., M.D., Department of Surgery, Cleveland Clinic, who will talk on "The Responsibility of the Surgeon in the Treatment of Cancer"; W. A. Sodeman, M.D., Professor of Internal Medicine, University of Missouri, who will discuss "Problems in Digitalis and Quinidine Therapy"; Willard Bartlett, M.D., Assistant Professor of Clinical Surgery, St. Louis University, will speak on "The Treatment of Acute Cholecystitis and Its Complications"; Ralph A. Reis, M.D., Professor of Obstetrics and Gynecology, Northwestern University, who will re-evaluate the use of endocrines in his topic "Endocrine Therapy of Obstetrics and Gynecology."

Registration will be held at 1:00 p.m., and the first of the four scientific sessions, of one hour each, will begin at 1:30 p.m.

Social activities will provide entertainment for the wives while the doctors are attending the scientific sessions. Mrs. Charles O. Metz, chairman of the ladies' entertainment, has arranged an afternoon which wives will enjoy and long remember. Immediately after the lectures, the ladies will join their husbands for a cocktail hour and dinner.

Four hours of Category I Medical Study Credit will be given AAGP members who attend this symposium. This compact one day program, conveniently arranged on Sunday, together with its social aspects, provides an unusual opportunity to fulfill postgraduate requirements while sharing an enjoyable afternoon with your wife. This meeting will replace the usual spring social event of the St. Louis Academy.

Reservations at $5.00 per person (including dinner) may be made through the St. Louis Academy of General Practice, 4 North Eighth Street, St. Louis. Dr. Preston C. Hall is Chairman of the program committee, and Dr. Walter T. Gunn is chairman of general arrangements.

TRIBUTE PAID FATHER SCHWITALLA

The Rev. Alphonse M. Schwitalla, S.J., St. Louis, was paid a special tribute by his friends and associates at the St. Louis University School of Medicine at a reception April 7.

James W. Colbert, Jr., M.D., Dean of the School, unveiled a portrait of Father Schwitalla, Dean Emeritus, in the South Wing of the School of Medicine, where the portrait will remain permanently. The University Council of Regents and Deans and their wives, the medical school faculty and wives and personal friends of Father Schwitalla attended a reception following the unveiling of the portrait. The portrait was painted by Kurt J. Budabin, a New York artist, from a photograph.

Father Schwitalla sees portrait unveiled.

Father Schwitalla was the first layman to be awarded the Certificate of Merit and Gold Medal of the American Medical Association "for outstanding effort for the public welfare on a national level." He was recipient of this award in 1948.

Father Schwitalla was Dean of the School of Medicine of St. Louis University from 1927 to 1948 and was made Dean Emeritus in 1949.

PUBLIC WARNING AGAINST HOXSEY CANCER TREATMENT

The U. S. Department of Health, Education, and Welfare, Food and Drug Administration, Washington, D. C., made the following release for newspapers on April 4.

Sufferers from cancer, their families, physicians, and all concerned with the care of cancer patients are hereby advised and warned that the so-called Hoxsey treatment for internal cancer has been found by the United States Court of Appeals for the Fifth Circuit, on the basis of evidence presented by the Food and Drug Administration, to be a worthless treatment.[1]

The Federal Food, Drug, and Cosmetic Act authorizes dissemination of information regarding drugs in situations involving imminent danger to health or gross deception of the consumer.[2]

The Hoxsey treatment for internal cancer involves such drugs. Its sale represents a gross deception to the consumer. It is imminently dangerous to rely upon it in neglect of competent and rational treatment.

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[1] The court decisions can be found in Volume 198, *Federal Reporter*, Second Series, page 273, and Volume 207, *Federal Reporter*, Second Series, page 567.

[2] 21 U.S.C. 375 (b) This authority has been delegated to the Commissioner of Food and Drugs by the Secretary of Health, Education, and Welfare, 20 Federal Register 1998.

pecific against
occic infections

Now, you can prescribe an antibiotic (*Filmtab* Erythrocin) that provides *specific therapy* against staph-, strep- or pneumococci. Since these organisms cause most bacterial respiratory infections (and since they are the very organisms most sensitive to Erythrocin) doesn't it make good sense to prescribe Erythrocin when the infection is coccic?

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(Erythromycin, Abbott)
STEARATE

ith little risk of
erious side effects

Since Erythrocin is inactive against gram-negative organisms, it is less likely to alter intestinal flora—with an accompanying low incidence of side effects. Also, your patients seldom get the allergic reactions sometimes seen with penicillin. Or loss of accessory vitamins during Erythrocin therapy. *Filmtab* Erythrocin (100 and 250 mg.), bottles of 25 and 100.

Abbott

filmtab®

Erythrocin®
(Erythromycin, Abbott)
STEARATE

®Filmtab—Film sealed tablets; patent applied for.

The Hoxsey treatment costs the patient $400 plus $60 in additional fees; expenditures which will yield nothing of any value in the care of cancer. It begins with a superficial and inadequate examination of the patient at the Hoxsey Cancer Clinic, Dallas, Texas, or Portage, Pennsylvania. The patient at Dallas is then supplied with one of the following "cancer" medicines: Black pills, red pills, a brownish-black liquid, or a light red liquid. The black pills and the brownish-black liquid contain: Potassium iodide, licorice, red clover blossoms, burdock root, Stillingia root, berberis root, poke root, cascara sagrada, prickly ash bark, and buckthorn powder. The red pills contain potassium iodide, red clover, Stillingia root, poke root, buckthorn, and pepsin. At Portage the patient is given the same "cancer" medication although the colors of the pills are different. The light red liquid medicine is potassium iodide in elixir of lactated pepsin. There is evidence that potassium iodide accelerates the growth of some cancers.

The Food and Drug Administration has conducted a thorough and long-continuing investigation of Hoxsey's treatment. His claimed cures have been extensively studied and the Food and Drug Administration has not found a single verified cure of internal cancer effected by the Hoxsey treatment. In addition, the National Cancer Institute of the United States Public Health Service has reviewed case histories submitted by Hoxsey and advised him that the cases provided no scientific evidence that the Hoxsey treatment has any value in the treatment of internal cancer.

On October 26, 1953, Harry M. Hoxsey, the Clinic, and all persons in active concert with him were enjoined by the United States District Court at Dallas, Texas, from shipping their worthless cancer medicines in interstate commerce with labeling representing, suggesting, or implying that the products are effective in the treatment of any type of internal cancer. While the Government intends to prosecute violations of the injunction, this warning is necessary for the immediate protection of cancer victims who may be planning to take the Hoxsey treatment.

Those afflicted with cancer are warned not to be misled by the false promise that the Hoxsey cancer treatment will cure or alleviate their condition. Cancer can be cured only through surgery or radiation. Death from cancer is inevitable when cancer patients fail to obtain proper medical treatment because of the lure of a painless cure "without the use of surgery, x-ray, or radium" as claimed by Hoxsey.

From the Medical Schools

UNIVERSITY OF MISSOURI

Grants

Dr. Walter J. Burdette, professor and chairman of the Department of Surgery, is the recipient of a grant from the American Cancer Society in the amount of $10,580, for studies on "The Effect of Pupation Hormone on Mammilian Tumors." The grant will become effective July 1, 1956, for a period of one year.

Dr. Clement E. Brooke, instructor in pediatrics, has been named a Markle Scholar in Medical Science, and has been granted $6,000 per year for a period of five years.

Dr. G. S. Lodwick, professor-elect, Department of Radiology, has been given a grant in the amount of $1,134 by the James Picker Foundation, for one year effective July 1, 1956, for the purpose of supporting studies on roentgen evaluation of the diagnosis and aggressiveness of primary bone neoplasms and primary lung neoplasms.

Guest Lecturer

Dr. John M. Nokes, professor of obstetrics and gynecology at the University of Virginia, spoke on "Masculinizing Syndromes" on February 24 at the University of Missouri School of Medicine.

New Appointments

Dr. Herbert Ensign Brown has been appointed assistant professor of anatomy, effective July 1, 1956. Dr. Brown received his degrees from the University of Utah, Salt Lake City, and is currently an instructor of anatomy and physiology in the division of biology at Westminster College, Salt Lake City.

Dr. Grafton Adrian Smith has been appointed assistant professor of surgery, effective July 1, 1956. He received his M.D. degree from Washington University School of Medicine and his Ph.D. from the University of Minnesota. At present he is an instructor in the Department of Surgery at the University of Minnesota Medical School.

Dr. Jason Ned Smith has been appointed instructor of medicine, effective July 1, 1956. Dr. Smith is currently a fellow in gastroenterology at the Henry Ford Hospital in Detroit. He received his M.D. degree from the University of Iowa.

Postgraduate Activities

The fourth in a series of six sessions in Postgraduate Medical Education, being presented at Joplin and Springfield, was held on February 15 and 16, with Dr. John H. Killough and Dr. Clement E. Brooke giving the lectures. Dr. Killough, associate professor of medicine, spoke on "Management of Cardio-respiratory Emergencies" and "Problems and Management of Cardiovascular Disease in the Aged." Dr. Brooke, instructor in pediatrics, lectured on "Antibiotics in Children" and "Current Immunization Practices."

At the Columbia session on Postgraduate Medical Education, Dr. Killough again spoke on "Management of Cardio-respiratory Emergencies" with Dr. Walter R. Hepner, Jr., associate professor of pediatrics, delivering the second lecture on "Management of Diarrhea and Vomiting."

Trips and Talks

Dr. M. D. Overholser, professor and chairman of the Department of Anatomy, and Dr. Dallas K. Meyer, professor of physiology, spoke at a meeting of Alpha Epsilon Delta Premedical Fraternity at Central Col-

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rheumatoid
arthritis

continuing benefits

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METICORTELONE*
(PREDNISOLONE)

- therapy usually undisturbed by sodium retention, edema, weight gain
- excellent relief of arthritic pain, swelling, tenderness
- spares patients salt-poor diets
- up to 5 times as potent as hydrocortisone

Available as 1, 2.5, and 5 mg. tablets; 2.5 and 5 mg. capsules
METICORTELONE,* brand of prednisolone. *T. M. ML-J-66-256

Schering

lege in Fayette on February 23. Dr. Overholser is currently Chairman of the Committee on Admissions at the University of Missouri School of Medicine while Dr. Meyer acts as premedical adviser. Dr. Overholser spoke on procedures of the Admissions Committee with additional remarks on premedical education at the University of Missouri supplied by Dr. Meyer.

On February 15, Dr. Thomas D. Luckey, professor and chairman of biochemistry, along with Dr. Owen J. Koeppe, assistant professor of biochemistry, and Dr. John M. Franz, instructor in the department, attended a seminar at Lawrence, Kansas, at which time Dr. A. R. Alberty, an enzyme chemist and professor in the department of physical chemistry at the University of Wisconsin, spoke on "Tracer and Kinetic Studies of the Fumerase Reaction."

Dr. William A. Sodeman, professor and chairman of the Department of Medicine, presented a talk entitled "Hardening of the Arteries" to a lay audience sponsored by the Missouri Heart Association in Fayette on February 22. On February 27, Dr. Sodeman participated in a panel on "Digitalis" held at the Medical Center of the University of Kansas.

Dr. Frank B. Engley, Jr., professor and chairman of the Department of Microbiology, and his staff attended a scientific meeting of microbiologists sponsored by the Eastern Missouri Branch of the Society of American Bacteriologists, held on February 14 at the Wohl Health Center in St. Louis. On March 13, Dr. Robert Keller, assistant professor of microbiology, was in Montgomery, Alabama, attending a course on "Diagnostic Viral Laboratory Techniques." The course was held at the Viral and Rickettsial Disease Center and was sponsored by the Communicable Disease Department of the United States Public Health Service.

On March 9 and 10, Dr. Clarence D. Davis, professor and chairman of the Department of Obstetrics and Gynecology, attended an interim meeting of District VII, the Missouri section of the American Academy of Obstetrics and Gynecology. Dr. Davis is Vice-chairman of the Missouri Section.

On February 25, the American College of Physicians held a regional meeting in Columbia at the Memorial Student Union, at which time Dr. Robert L. Jackson, professor and chairman of the Department of Pediatrics, presented a lecture on "Prognosis in Juvenile Diabetes." At the same meeting, Dr. Thomas W. Burns, assistant professor of medicine, delivered a talk entitled "Some Physiological Observations on the Ababda Tribespeople of the Southeastern Desert of Egypt."

Dr. Jackson and Dr. Frederic E. Simpson, instructor in pediatrics, were present at a Conference on Pediatric Education for Region VI, sponsored by the American Academy of Pediatrics, and held in Cincinnati at the Children's Hospital. The meeting for next year is scheduled to be held at the University of Missouri. Dr. Jackson presented lectures entitled "Nutritional Care of Infants and Children" and "Management of the Child With Diabetes Mellitus" as part of the postgraduate course in pediatrics being held at the University of Kansas Medical Center and sponsored by the University of Kansas School of Medicine, the local medical society and the Kansas State Board of Health.

Dr. Walter J. Burdette, professor and chairman of the Department of Surgery, participated in a symposium on "Gallbladder Disease" held at Little Rock, Arkansas, by the American College of Surgeons.

Mrs. Una Thomas, instructor in nursing, spoke at a Career Day held by Slater High School in Slater, on February 23. Mrs. Thomas apprised interested students on the opportunities in Medicine and Nursing.

Dr. Roscoe L. Pullen, Dean of the School of Medicine, attended the American College of Physicians meeting which was held in Columbia on February 25. On February 26 and again on March 11 Dr. Pullen attended meetings of the Subcommittee of the Missouri Health Council. Dr. Pullen addressed the staff of the Deaconess Hospital in St. Louis March 13 on the topic "Developments at the University of Missouri School of Medicine."

Dr. Frank B. Engley, Jr., Acting Assistant Dean of the School of Medicine, attended a meeting in St. Louis on Monday, March 5, called by the Missouri State Medical Association for the purpose of discussing plans concerning National Fund for Medical Education Week which will be held April 22 to 28. While in St. Louis, Dr. Engley also visited the School of Medicine of St. Louis University.

SAINT LOUIS UNIVERSITY

A $41,958 Neurology Training Grant has been awarded the School of Medicine by the National Institute of Neurological Diseases and Blindness of the United Public Health Service. Dr. Louis L. Tureen, assistant professor of clinical neurology and psychiatry and executive secretary of the section on neurology, has been named Graduate Director of the Medical Training Program. The two year grant, which became effective April 1, will be used primarily for the training of graduate students in neurology, but will also increase the facilities for the training of medical students. Dr. Tureen last year investigated neurological research and teaching programs throughout Europe.

A Cardiac Auscultation Course directed by Dr. James G. Janney, Jr., assistant professor of clinical medicine and Director, Division of Cardiology, was recently attended by thirty-five physicians from different parts of the State of Missouri. Dr. James W. Colbert, Jr., Dean, presented a welcoming address and introduction to the course. Those who appeared on the speaking and panel programs were: Dr. John W. Berry, assistant professor of clinical medicine; Dr. Donald Bussman, senior instructor in internal medicine; Dr. Chester P. Lynxwiler, assistant professor of clinical pediatrics; and Dr. Robert Potashnick, assistant professor of internal medicine. They participated in discussions on "The Role of the Outpatient Department in the Teaching of Pediatrics."

The course, which covered congenital, rheumatic, hypertensive and arteriosclerotic heart disease as well as functional heart sounds and murmurs was cosponsored by the Missouri Department of Health, the Missouri State Medical Association, the Missouri Academy of General Practice, the Missouri State Heart Association and the St. Louis Academy of General Practice.

Three members of the Department of Pediatrics attended the American Academy of Pediatrics Region Six Meeting on Medical Education March 9 and 10. Attending were Dr. Peter G. Danis, professor of clinical pediatrics and chairman of the department, Dr. James P. King, assistant professor of pediatrics and Dr. Chester P. Lynxwiler, assistant professor of clinical pediatrics. They participated in discussions on "The Role of the Outpatient Department in the Teach-

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*Fishberg, A. M.: Hypertension and Nephritis, ed. 5, Philadelphia, Lea & Febiger, 1954, pp. 177-178.

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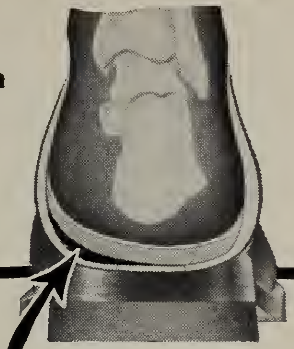

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ing of Pediatrics." The University of Cincinnati was host to the meeting.

Dr. C. Rollins Hanlon, professor of surgery and director of the department, attended a meeting of the Society of Clinical Surgery in Chicago March 30 and 31.

Dr. Henry Pinkerton, director of the department of pathology, spent a week as a consultant to the Armed Forces Institute of Pathology in Washington, D. C., March 19 to 24. During his stay, he gave a lecture titled "Benign Toxoplasmosis."

Dr. Carl A. Moyer, professor of surgery, Washington University, delivered the annual William H. Vogt lectureship at the School of Medicine, March 26. His topic was "Fluid Balance of the Post-Operative Patient." The lectureship was sponsored by the Alpha Mu Chapter of Alpha Kappa Kappa Fraternity of Saint Louis University School of Medicine.

Ninety-nine graduate surgeons trained in orthopedic surgery assembled at the Saint Louis University School of Medicine to take oral and written examinations to qualify them as specialists in orthopedic surgery March 29 and March 30. The examination was conducted by The American Board of Orthopedic Surgery, and was under the direction of Dr. George Garceau, professor of orthopedic surgery, University of Indiana School of Medicine. Dr. Garceau was assisted by twenty-five orthopedists drawn from the schools of medicine of St. Louis University, Washington University, Northwestern University, University of Tennessee and Iowa University. Chairman of the local arrangement committee was Dr. Robert M. O'Brien, professor of clinical orthopedic surgery and chairman of the department, Saint Louis University School of Medicine.

Gift

A memorial fund honoring the late Dr. Frederick A. Jostes, who was a prominent St. Louis orthopedic surgeon, has been established at Washington University School of Medicine by his widow. The fund will be used to support the research program in the hematology division. The late Dr. Jostes was an assistant professor of clinical orthopedic surgery at the time of his death in 1952.

Lecture

Dr. Sam L. Clark, professor and head of the department of anatomy at Vanderbilt University School of Medicine, delivered the annual Robert J. Terry lecture March 21 at the medical school. His subject was "Some Studies of Cerebellar Function in the Intact Animal." The lecture is sponsored by Washington University School of Medicine. Dr. Clark was a member of the department of anatomy here from 1924 to 1928. The lectureship, established in 1938, honors Dr. Terry, professor emeritus of anatomy. Dr. Terry was head of the department of anatomy at the medical school from 1900 until his retirement from teaching in 1941. He still is active in research.

Child Guidance Clinic

The advisory council of the Community Child Guidance Clinic of Washington University held its annual meeting recently. Speakers for the meeting included Dr. Alex H. Kaplan, acting director of the clinic; Dr. Oliver H. Lowry, dean of the medical school; and E. H. Hopkins, vice chancellor of the university. They described the functions of the clinic and how it fits into the program of the university and the medical school. The clinic, which is located in the Medical Center, was reorganized on a permanent basis in 1949 with the combined functions of teaching, research and service in child guidance work.

Travel

Dr. Carl V. Moore, Busch professor of medicine and head of the department, recently discussed "Medical Education" at a meeting of the Greene County Medical Society in Springfield, Mo. Dr. Alexis F. Hartmann, professor of pediatrics and head of the department was in Buffalo on March 22 and 23 where he delivered the seventh Douglas P. Arnold lectures at the University of Buffalo School of Medicine. His subjects were: "Carbohydrate Metabolism in the Newborn and Young Infant" and "Comments on Some Problems of Diabetic Management." Dr. Edmund V. Cowdry recently attended a meeting of the American Society for the Aging held in Palm Beach, Fla. Dr. Bettye M. Caldwell, research associate in medical psychology and in pediatrics and director of the new Child Evaluation Clinic at the medical school; and Dr. Ivan N. Mensh, associate professor of medical psychology and psychologist in the dean's office, attended a training institute at New York Medical College March 14 to 17. The subject of the institute was "The Evaluation and Treatment of the Mentally Retarded Child in Clinics."

Appointments

Dr. John R. S. Shields, director of anesthesiology at the Children's Hospital, Winnipeg, Canada, and at the University of Manitoba, demonstrator in anesthesiology and specialist in anesthesiology in the College of Physicians and Surgeons, recently was named assistant professor of anesthesiology in the department of surgery; and Dr. Bela I. Hatfalvi was appointed instructor in anesthesiology. Since 1952 Dr. Hatfalvi has been house physician and assistant in anesthesia at Amherst Clinic and Hospital, assistant resident in anesthesiology at Ohio State University and resident in anesthesiology at the University of Maryland.

Visitors

Dr. Leslie John Witts, Nuffield professor of clinical medicine at the University of Oxford, England, recently served for one week as visiting professor of medicine at the medical school. He conducted a full teaching program during that time. Dr. Witts' appointment was the first of its kind in the department of medicine. Dr. Phillip Tobias, from the department of anatomy at the University of Witwatersrand, Johannesburg, South Africa, recently spent two weeks visiting in the department of anatomy here. He delivered a lecture at the medical school on "The Bushmen." Dr. Tobias is on an eighteen-month fellowship from the Rockefeller Foundation and is visiting anatomists and anthropologists in the United States. Revent visitors in the department of medicine were Dr. Cecil Watson, professor and head of the department of medicine at the University of Minnesota, who also spoke at a meeting of the St. Louis Medical Society while in St. Louis, and Dr. Sven Moeschlin, from Solothurn, Switzerland, who gave a lecture in the department on March 15.

have some direct or indirect interest. After a general plan has been agreed upon, a smaller group can serve as an advisory group but better results will be obtained if everyone interested directly has a chance to be fully informed and has a part in deciding on the plan.

The plan should include provision for everything from the educational campaign through a complete follow-up and report. Adequate records will be indispensable for final evaluation. Sample forms are now available from the Social Research Division of the National Tuberculosis Association.

A well worked-out plan for informing the whole community about the tuberculin testing program is a necessity and also affords an opportunity to extend interest to the entire tuberculosis control effort. Expert guidance from professional health educators should be sought and represented on the central planning committee.

All reactors should have chest x-rays annually, although few white children up to age 12 will have demonstrable lesions. This may become more important if the use of chemotherapy for primary lesions becomes general. This preliminary x-ray check of reactors is only the first step in the follow-up program and will usually reveal few or no active cases.

The next and more difficult step is the examination by tuberculin test, x-ray, or both of all contacts of new reactors found. This is more successful among young children who have fewer contacts with adults and most of these are in the home. Practically, this search should be extended to reach the contacts of older children and adults who have recently become tuberculin reactors.

At present the available data are inconclusive both as to prevailing infection rates, trends and these rates, and the efficiency of various tuberculin testing programs in discovering new cases. Efforts are now being made to collect what information may exist but this has not so far been analyzed and reported. Plans for new studies are contemplated.

However, scattered reports provide a basis for some speculation: 1. Tuberculin infection rates are declining in most places. Reactor rates in schools and colleges are lower in recent years. 2. Infection rates vary considerably geographically and by age and sex. Rates are higher in more densely populated areas and increase up to age 60-70, although females have lower rates than males after age 30. After age 60-70 there is a decrease in reactor rates, but they remain high. There is some indication that new infection rates taper off rapidly after age 30-40 and that the high rates in the older ages are the result of high infection rates in the years when they are young. 3. Case-finding results using the tuberculin test as a preliminary screen are extremely variable but usually disappointing.

There are some theoretical reasons for the failure of tuberculin test programs to uncover larger numbers of previously unknown active cases: 1. In areas of low incidence and low prevalence of cases, factors at present now specifically identified, delay or prevent the development of infection into significant disease. 2. Well conducted health department programs with efficient continuous follow-up of old cases and new

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cases with their immediate contacts are already discovering most of the new and relapsing cases. 3. With the shift of average age of active cases to an older level, there is less likely to be a school age child in a home where a person with active tuberculosis resides. 4. Many children who live in a home with a tuberculosis patient do not become infected. 5. Many children are probably infected by casual contacts not easily traced.

Although the individual tuberculin test may seem inexpensive, the cost of a program can be very high for the results obtained in the control of tuberculosis. Material costs are low but all those tested must be seen at least twice by someone with professional training and a variable number will require subsequent x-ray examinations. The follow-up of contacts also requires large amounts of professional time and travel. Often the professional time is donated or hidden in the budget of another agency but it is a real cost and should be taken into account.

Although no one can place an absolute value on the benefit to the community in finding a case, the costs of a case-finding program must be weighed against other possible procedures which might be more efficient. A rational decision can only be made by a careful study in each community. Programs should be well planned with subsequent evaluation in mind.

Tuberculin tests are valuable in diagnosis, to determine the status of tuberculosis control in a community, and perhaps as a screening tool in casefinding. Although several techniques are in use, the intradermal test with P.P.D. is preferred. Patch tests can be used successfully but have definite disadvantages.

For determination of rates of infection and rate trends in a community, the best information can be obtained by testing the whole population. In decreasing order of efficiency, the test program may consist of a scientific sampling of the whole population, all school children and school employees, and selected school grades.

An important part of the preparation for a tuberculin test program which is valuable for both its immediate and long-range benefits is an extensive educational program for the whole community with as wide participation as possible.

The follow-up program is difficult and expensive. It must include examination of contacts of reactors as well as x-rays of reactors, and must be planned for in advance.

Accurate data on the case-finding potential of programs using the tuberculin test as a screen are almost totally lacking. Those who may have such data are urged to make them available through publication. Current tuberculin testing programs should be thoroughly evaluated and a few pilot studies should be initiated. Special assistance in planning such studies is now available through the NTA Division of Social Research.

Editor's Note: This is the second of two abstracts on the tuberculin test—the first of these was the April issue of Tuberculosis Abstracts.

BOOK REVIEWS

Hypertensive Diseases Causes and Control by Henry A. Schroeder, M.D., F.A.C.P., Associate Professor of Medicine and Director, Hypertension Division, Department of Internal Medicine, Washington University School of Medicine; Assistant Physician, Barnes Hospital, St. Louis, Missouri, with Contributions from Gregory S. Gressel, M.D., Dean F. Davies, Ph.D., M.D., H. Mitchell Perry, Jr., M.D., and Donald F. Gibbs, M.B., Ch.B., M.R.C.P. (Edin.). 164 Illustrations and 3 Colored Plates. Lea & Febiger, Philadelphia. 1953. Price $10.00.

Dr. Schroeder's book has long been awaited by his former students and others who have followed his work on the subject of hypertension. In general the monograph lives up to expectations. It is well written, in a style that is easy to follow. The text is abundantly illustrated with various diagrams and illustrations, all beautifully reproduced.

The value of the monograph is in its organization, correlating the known clinical and laboratory facts that have been gathered over many years with recent biochemical developments. The exciting speculations that these new facts might lead to are discussed and alluded to. Some excellent basic knowledge concerning the metabolism of the amino acids in relation to vasopressors are discussed in a chapter written by Dr. H. Mitchell Perry, Jr. The chapter on "Hormonal Factors in Hypertension" by Dr. Dean F. Davies, is well written and an excellent compilation of the known data on this subject.

Dr. Schroeder's break-down of "Essential Hypertension" into his clinical grouping is well explained and should clarify for the practitioner this ambiguous term. The justification for such a clarification is well developed and affords a rational treatment schedule of the various forms of the syndrome based upon the physiologic and biochemical data collected by the author and others. A complete summary of the author's experience with Hexamethonium-apresoline therapy is included with full particulars concerning its administration. Any doctor utilizing this form of therapy in hypertension should consult this chapter (Chapter 21).

The text is accompanied by an excellent bibliography at the end of each chapter that increases its value. It can be recommended without qualification for the student as well as the practitioner. In summary, it is this reviewer's opinion that Dr. Schroeder has made a definite contribution to the medical literature. This monograph is a tribute to the author's excellent teaching and investigative abilities. J. W. B.

Reproductive System, Volume 2, the Ciba Collection of Medical Illustrations. A compilation of Paintings on the Normal and Pathologic Anatomy of the Reproductive System. Prepared by Frank H. Netter, M.D. Edited by Ernst Oppenheimer, M.D. With a

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foreword by John Rock, M.D., Clinical Professor of Gynecology, Harvard Medical School. Ciba Pharmaceutical Products, Inc., Summit, New Jersey. 1954. Price $13.00.

For years the medical profession has been aware of the unique talent of Dr. Frank Netter in vividly portraying embryology, histology, anatomy and pathology as only an individual who is both a gifted artist and a trained physician can. Recently the Ciba Pharmaceutical Company, who have published his illustrations through the medium of their *Clinical Symposia,* had Dr. Netter compile his works pertaining to the nervous system and published Volume I of this series.

Volume II, *The Reproductive System,* is a similar collection containing 233 plates, 144 of which were published previously in the Symposia and 89 of which for the first time. Thirty per cent of the old illustrations, however, had to be rectified or supplemented with additional pictures. The book is edited by Dr. Ernst Oppenheimer and has as its contributers and consultants for description of illustrations and verification of accuracy of drawings, eleven well known and respected men from the fields of obstetrics, gynecology, urology, anesthesiology and pathology.

The book, which contains 286 pages, is divided into two main parts, the male and the female reproductive systems. The first section describes the embryology of both reproductive systems. The succeeding sections describe normal anatomy and then the pathology of both male and female systems. This is done with considerable detail and also includes the anatomy and pathology of pregnancy and the mammary gland and describes and illustrates the intersexes. Physiology is also clearly described, particularly hormonal relationships.

Although the scope of the volume is complete, this book is not designed by its authors to be a textbook but rather a supplement and augment, such basic texts, thereby understanding better their fundamentals. In other instances it is thought that through its clear illustrations it may bring back to the reader in a short time knowledge which has been forgotten.

Human reproduction is logically arranged, easily read, accurate in its illustrations and their accompanying descriptions and is recommended as a valuable addition to the library of the medical students, general practitioner or specialist. H. J. W.

IT'S NOT ALL IN YOUR MIND, by H. J. Berglund, M.D.; and H. L. Nichols, Jr. North Castle Books, Greenwich, Connecticut. 1953. Price $3.95.

The scope of this small book is tremendously wide. The authors themselves say they want to give a simple explanation of the nature of psychoanalysis and of psychosomatic practice and theory; they also indicate their intention of proving the "undeniable physical basis" of back pain, glandular difficulties and allergies. The first 130 pages constitute a review of some basic psychiatric and psychoanalytic concepts. The second 145 pages concern allergy. The next 38 pages are devoted to what is called internal chemistry. This chapter includes short discussions of hormones, the general adaptation syndrome, corpulence and alcoholism. Then 12 pages are devoted to a chapter entitled "Joints."

The first 130 pages of the book give a humorously written simple and usually valid review of psychiatric theory. The authors take quite a few slaps at their conception of psychosomatic medicine. The portion of the book concerning allergy has, in simple language, a digest type review of theories about allergy. I believe that much in this chapter would not be interesting to either layman or physician. They do illustrate dramatically some of the results that can be obtained from simple measures in some cases of allergy. As can be seen from the contents of the chapter on "Internal Chemistry" the authors have tried to put into simple language some rather complicated principles. They have achieved more than fair success in doing so. In the chapter entitled "Joints" the authors sound somewhat like they are arguing for some of the basic tents of old-fashioned osteopathy.

Indeed there are several places in the book in which it sounds like the authors are arguing with physicians rather than writing for laymen. It is chiefly because of this that one is puzzled about the audience for whom the book is intended. Neither the introduction to the book nor the author's background helped make this clear. In a folder advertising the book one is told that Dr. Berglund's training is that of R.N. and M.D. who was associated at one time with an allergist and a "glandular specialist and family psychiatrist."

In general this book seems to be aimed at laymen. I believe that parts of it, particularly the section on allergy, are too complicated to interest the average laymen. This section, however, does emphasize the importance of cooperation in treating allergic problems. Although physicians might be interested in some of the humorously written, digest type reviews of principles of allergy and psychiatry, many of them might be more interested in this book for the slaps the authors take at what they call psychosomatic medicine. J. J. O'H.

YOU AND YOUR HEALTH by Edwin P. Jordan, M.D., Executive Director, American Association of Medical Clinics. G. P. Putnam's Sons, New York. 1954. Price $3.95.

This is a book that the busy doctor would not want to sit down and read from cover to cover. However, it is one that even the busiest of doctors would do well to glance through and obtain the general thought. For those of us who feel that the best patient is a well informed patient on his condition this book can certainly be recommended.

It is informally written in nontechnical terms and covers a surprisingly large field of the diseases of man. It is written to be understood, with no attempt at dramatization or to frighten the patient. The author cleverly leaves out the most controversial subjects or treats them in a manner that does not confuse the lay reader. Throughout the book, the advisability of consulting one's doctor is stressed, and the author certainly makes no attempt to encourage self diagnosis and treatment.

Each chapter of the book deals with a system or a condition, such as the heart and cancer and related disorders. At the conclusion of each chapter is a list of questions and answers on the subject discussed. It could perhaps be said that many times the answers given to the questions are not complete and would not be totally what the patient is seeking; however, they do seem to be helpful.

For all patients, except the neurotic ones, the doctor could find this book useful in his practice as recommended reading. M. R. B.

Curiosa et Trivia

WILLIAM B. MCCUNNIFF, M.D.

Tornadoes took 1,766 lives in the United States during the decade 1946-1955 and inflicted injuries on approximately ten times that number of people.

Crude mortality in the United States dropped from 17.2 deaths per 1,000 population in 1900 to an estimated 9.2 in 1954—a decrease of about 46 per cent.

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Chances are one in four you own some United States savings bonds. More than 40 million Americans do.

Traffic safety has become one of the most urgent challenges to the American public. Last year's toll: 38,300 killed; 1,350,000 injured, and an economic loss of nearly five billion dollars. This is the worst record in 14 years.

Nearly one out of every three persons in the United States today is a Blue Cross member. In Canada, five Blue Cross Plans have enrolled 26 per cent of the population of eight provinces.

The proverbial "two beers" excuse may be gaining in stature. Recent investigation has shown that forced consumption of one twelve-ounce bottle of beer every half hour for eight consecutive hours produced blood alcohol levels below the minimum level for intoxication.

A rude awakening from the antibiotic-induced euphoria of "vanishing disease" is the fact that one American died every twenty-seven minutes in 1955—from tuberculosis.

Still basically German, and perhaps more descriptive is the foreign physician's detail of midmenstrual cycle pain: "This lady was struck in the lower left quadrant with a Messerschmitt."

Capsule Clinics

I. A. WIEN, M.D.

- It goes without saying that every effort should be made to avoid any amputation, and this is particularly true in the upper extremity because artificial prostheses, however remarkable they may eventually become, cannot assume the normal function of an extremity. Bancroft, F. W., and Marble, H. C.: Surgical Treatment of the Motor-Skeletal System, J. B. Lippincott Co., Philadelphia, 1945.

- Causes for most amputations of an extremity are: trauma, congenital deformity, infection, malignant growths and vascular disease. Bancroft, F. W., and Marble, H. C.: Surgical Treatment of the Motor-Skeletal System, J. B. Lippincott Co., Philadelphia, 1945.

- Cancer of the lung leads all other respiratory causes of death in white males, exceeding tuberculosis and pneumonia, and it is largely responsible for the fact that more men die of malignant disease than women. Delarue, N. C.: Surg. Clin. North America **34** (August) 1954.

- Mediastinal tumors cause no symptoms in 20 per cent of the patients so afflicted. The commonest symptom triad are: cough, pain and shortness of breath. Key, J. A.: Surg. Clin. North America **34** (August) 1954.

- Hydrocephalus is not a congenital anomaly nor a specific disease; it is rather characterized by an increase in size of the ventricles and sometimes also of part of the surface subarachnoid pathways of the brain. Matson, D. D.: Surg. Clin. North America **34** (August) 1954.

- Resection of the pancreas for carcinoma arising within the organ is worthwhile as a palliative procedure but so far offers little chance of cure. Rhoads, J. E., et al.: Surg. Clin. North America **29** (December) 1949.

- Hyperinsulinism may arise in three ways: adenoma of islet cells, carcinoma of the islet cells, or hyperplasia of the islet tissue. Rhoads, J. E., et al.: Surg. Clin. North America **29** (December) 1949.

Entered as second-class matter, February 18, 1925, at the post office at Fulton, Missouri, under the Act of March 3, 1879. Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917. Publication Office: 1201-5 Bluff Street, Fulton, Missouri. Editorial Office: 634 N. Grand Ave., St. Louis 3, Mo. Subscription Price: $3.00 Per Year. Printed by The Ovid Bell Press, Inc., Fulton, Missouri.

Missouri Medicine in Review

Leo H. Pollock, M.D.

FORTY YEARS AGO

The 59th annual meeting of the Missouri State Medcial Association, held at Excelsior Springs May 8 to 10, was attended with gratifying success from every standpoint. The attendance in the House of Delegates was large, there being fifty-seven countries represented. The program contained forty-three papers and only five essayists failed to appear at the meeting, one of these being the lamented Dr. J. E. Hunt, who died after the program had been printed and before the meeting convened. The election of Dr. J. Franklin Welch as President was a unique demonstration of the great popularity of our former treasurer. Without a moment's hesitation, following his nomination by Dr. Jabez N. Jackson, nominations were closed and the secretary was ordered to cast the ballot for Dr. Welch. When the registration bureau closed on Wednesday the total registration was 460. The general satisfactory conduct of the meeting made it a great temptation to accept the invitation to return to Excelsior Springs for the next meeting.

The 67th annual meeting of the American Medical Association convenes at Detroit, June 12 to 16. At this meeting the president-elect, Rupert Blue, of Washington, D. C., will be installed and deliver his address.

The Fifteenth Annual Meeting of The American Urological Association, held in St. Louis at the Planters Hotel, April 17 to 19, was pronounced a success from every standpoint. Dr. Edward L. Keyes, Jr., New York, President of the Association and toastmaster, read a poem which was enjoyed by all. Dr. Frederick W. Robbins, Detroit, was elected president and Dr. Henry L. Sanford, Cleveland, was reelected secretary. The next meeting goes to Chicago.

At the regular meeting of the Buchanan County Medical Society, the subject of what to do with the proceeds left from entertaining the Missouri Valley Medical Society was thoroughly discussed, and a motion made by Dr. H. Lee that the surplus be pro rated and a portion turned back to the Commerce Club was put to a vote and lost. A motion was made by Dr. J. F. Owens and carried that the surplus, consisting of $232.14, be set aside for an entertainment fund.

At the Bates County Medical Society meeting, we learned of the untimely death of our confrere and fellow member, Dr. C. P. Bowden, Appleton City, who was fatally injured in a cyclone near Rockville the day previous and dying only a few hours before our society convened.

TWENTY-FIVE YEARS AGO

Our members in Jasper County earned the gratitude and admiration of every physician who attended the 74th Annual Session of our Association in Joplin, May 11 to 14, for the generous hospitality extended and the close cooperation with the officers in making the meeting one of the most successful we have ever held. The amendment to the Constitution introduced at the Hannibal Session providing for three vice presidents was adopted. With fifty-six papers listed only two essayists failed to appear when their names were called. Dr. Joseph W. Love, Springfield, was elected President-Elect; Drs. Joseph Grindon, St. Louis, P. D. Gum, West Plains, and B. W. Hays, Jackson, were elected Vice Presidents. Dr. George W. Hawkins, Salisbury, was reelected Treasurer and Dr. E. J. Goodwin, St. Louis, was reelected Secretary-Editor. Drs. Emmett P. North, St. Louis, and E. J. Goodwin, St. Louis, were reelected delegates to the American Medical Association. Jefferson City was selected for the place of meeting for 1932. The attendance was 378.

E. P. Heller, M.D., of Kansas City, writes in the state journal: "A simple, double plane method of extension in fractures of the femur has been described. It is known as Russell extension having been named after its originator, Dr. Russell, of New Zealand. The author has seen it applied in the wards of two large hospitals in Philadelphia and has applied it himself in the Kansas City General Hospital. He has not seen it applied nor heard of its application elsewhere. He believes the method deserves the confidence placed in it by Drs. Gibbon and Lee, of Philadelphia, and should be widely used where technical knowledge of skeletal traction, Böhler apparatus, Hawley tables and other paraphernalia are lacking."

The School of Medicine of the University of Missouri observed the second annual Medical Day at Columbia, April 17. Dr. Walter E. Dandy, Johns Hopkins University, Baltimore, was guest of honor. Dr. Dandy is a native Missourian, born in Sedalia April 6, 1886. He earned his A.B. degree at the University of Missouri in 1907 and in 1928 the university conferred upon him the honorary degree of LL.D. He received his medical degree from

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Johns Hopkins University School of Medicine in 1910 and is now associate professor of surgery in charge of surgery of the nervous system at Johns Hopkins University.

TEN YEARS AGO

The voters of Missouri adopted the new Constitution for the state on February 27, 1945. Included in this new Constitution was a provision requiring the Legislature to create a new Department of Public Health and Welfare. Also included was provision that all agencies, boards, bureaus and commissions of the state be consolidated into not more than fourteen individual departments. Considering the fact that there existed some hundred odd different agencies handling the multiplicity of detail in our state government, it becomes apparent that the framers of the Constitution left the state Legislature a job of no small proportions. Three major divisions are contained in the Department of Public Health and Welfare. These are the divisions of Public Health, Mental Disease and Social Welfare. The department is to be headed by a director appointed by the governor. Each of the three divisions is to be headed by a director.

Dr. Claude Grant, St. Joseph, addressed the South Side Lions Club of St. Joseph on February 26 on "Socialized Medicine."

Dr. Harry L. Alexander, St. Louis, has been appointed a part time chief of section in the professional services division of the Veterans Administration. He will serve as consultant and adviser on allergy.

Mr. Jay Ketchum, executive vice president of Michigan Medical Service, has been appointed director of the newly created Division on Prepayment Medical Care.

Six Missouri physicians talked with Senators Donnell and Briggs in Washington concerning the Wagner-Murray bill on April 15 through the auspices of the National Physicians' Committee. The physicians were Drs. Howard B. Goodrich, Hannibal; Wallis Smith, Springfield; W. A. Bloom, Fayette; A. S. Bristow, Princeton; Vincent T. Williams, Kansas City, and E. C. Ernst, St. Louis.

Dr. Sam H. Snider, Kansas City, was elected president of the Missouri Chapter of the College of Chest Physicians at a meeting in St. Louis.

The Winthrop Chemical Company, Inc., has published a review of the importance of tryptophane, one of the essential amino acids. It is pointed out that man's need for some form of tryptophane has been definitely established, and at present there is general agreement that the requirement for optimum health of the adult human is approximately 1 to 1.25 grams per day. "Cow's milk contains 47 mg. tryptophane per 100 cc.," the book continues, "human milk 31, and specially prepared babies' milk (in which cow's milk is diluted to 50 per cent of its protein content) only 24 mg. per 100 cc. It has been suggested that the formulae of infants' milk preparations might be improved by raising the tryptophane content up to at least 31 mg. per 100 cc. found in human milk."

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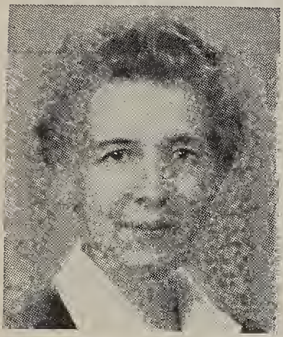

The 31st Annual Meeting of the Women's Auxiliary to the Missouri State Medical Association is now just a pleasant memory. The old cliche about "All work—and no play—" was well headed, for the social aspect of our convention was delightful. The Buffet Supper on Sunday evening, the delightful programs for the luncheons and the never to be forgotten Tea gave us a chance for "small talk" dear to a woman's heart. Reports of work done by Auxiliary members throughout Missouri was exciting, delightful and inspiring to listen to. No one could have attended and not gone home with many new ideas and renewed dedication to become a working member of our team. The fine young women who are taking an active part in the Auxiliary program and the good members who have been the backbone of the organization deserve every plaudit. We number 1,780 total membership this year, a gain of 150 new members.

May we introduce to you our newly elected board of officers, directors, committee chairmen and medical advisory council for 1956-1957:

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President, Mrs. Charles Shepherd, 10 Covington Meadows, Clayton 24.

President-elect, Mrs. Armand D. Fries, 7 W. Geyer Lane, Kirkwood 22.

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Quoting the Press

The *Columbia Daily Tribune* recently carried an editorial which originally had appeared in the Des Moines Register. The editorial follows:

Congress Can Stop This Cheating

The House veterans affairs committee is disturbed because a study reveals some well-heeled veterans with non-service connected ailments are getting free government hospital care. The U. S. general accounting office survey turned up one veteran, who swore he couldn't afford treatment, worth more than half a million dollars. Several others had assets between $35,000 and $156,000.

The figures shouldn't startle anyone very much, least of all Congress. The general accounting office made the same kind of study in 1952. It found in a random sample at least four veterans who got free care who were worth between $100,000 and $500,000, while a number of others obviously could have paid for their care if they chose.

The chiseling that goes on—apparently by a relatively small number of veterans—is directly attributable to congressional inaction. Congress provided free care for veterans with non-service connected ailments if they couldn't pay on their own, but never has defined "inability to pay." Congress also has steadfastly refused to direct the Veterans administration to check up on applicants for care. The present system of accepting "inability to pay" oaths at face value invites veterans to cheat.

Among the veterans cited by the general accounting office study is one from the Spanish-American war. Others served from around 1918 to 1921. All of them became eligible for hospitalization simply for having served long ago, even though the ailments might be the result of an auto accident day before yesterday.

The result of this free and easy policy is that 70 per cent of all VA general hospital cases are being treated for non-service connected illnesses. The cost for non-service connected care is more than a half billion dollars annually.

The Hoover commission task force studying federal medical services recommended putting a time limit on eligibility for free care in the same way time limits are placed on other GI benefits. "Lifelong care," said the report, "should not evolve alone from the very normal incident of fulfilling the duties required of every citizen." The report proposed limiting free care for non-service connected ailments to within three years after discharge.

The full Hoover commission shied away from the three-year proposal but recommended tightened procedures to make sure only truly indigent veterans got free care.

In election year 1956 it's perhaps too much to expect Congress to give serious consideration to either of these worthwhile approaches.

Prior to Medical Education Week, the *Trenton Times* carried an editorial, as follows:

Medical Education Week

Preparations are now in full swing for Medical Education Week, to be observed April 22-28. The four sponsoring national organizations—the American Medical Association, the Association of American Medical Colleges, the National Fund for Medical Education, and the American Medical Education Foundation—are doing everything in their power to make sure that, during this special observance, the American people will learn and appreciate the strides and accomplishments that have been made by the Nation's approved medical schools.

All power to them—and to the other groups, organizations and institutions that will cooperate to make the week the success it should be. There are many misconceptions about the state of American medical education—some of them promoted by people who want government to move in, financially and in other ways, and to ultimately take over the direction and control of the schools. But the fact is that these schools, under private auspices, have made remarkable progress—and have contributed greatly to the unexcelled standards of medical care that exist in this country today.

This is not to say that there are no problems. For one thing, the medical schools need money. But they want to get that money from private enterprises and individuals, on a voluntary basis. And the interest the Week arouses will, it is devoutly to be hoped, help bring about success in that endeavor.

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Missouri Medicine

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Vol. 53 June, 1956 Number 6

Carcinoma of the Breast

The Rationale of Radical Mastectomy in Treatment

JOHN J. MODLIN, M.D., AND RICHARD E. JOHNSON, M.D., *Columbia, Missouri*

ALTHOUGH radical mastectomy has been considered the most effective means of treating cancer of the breast for many years, the fact remains that it fails in approximately half of the cases operated upon. This has resulted in the search for a more effective method of treatment, such as McWhirter's[6] recommendation of simple mastectomy and intensive postoperative irradiation, and the extended operations of Urban,[7] Wangensteen,[8] and others. In our opinion, the conventional radical mastectomy is still to be considered the most practical treatment for cancer of the breast at the present time. It offers not only the possibility of cure, but also, prolonged palliation—an often overlooked dividend.

THE CONVENTIONAL RADICAL MASTECTOMY

In order to evaluate properly the results of the cases which are to be reported, it is important to define what is meant by the term "conventional radical mastectomy." Despite the extensive use of the radical mastectomy for many years, surgeons differ widely concerning certain fundamental features of the operation. These include the amount of skin that should be removed, the thickness of the dissected skin flaps and the necessity for skin grafting. The operation is too tedious to win the approval of all surgeons and many are unwilling to devote the time and energy necessary for its thorough and proper performance. In the cases to be reported, the technic outlined by Haagensen[2] has been followed, with some modification. Wide skin removal is the rule, and a skin graft is used to cover the defect in more than 90 per cent of our cases. We are well aware that this probably does not bring about a great increase in curability, especially if the dermal lymphatic channels are involved with metastases at the time of operation. Wide skin removal does, however, enable the surgeon to keep as far away from the primary cancer as possible and, if skin grafting is planned at the beginning of the operation, there is less temptation for the weary surgeon to pull the skin flaps together under excessive tension at the end of a long operation. We have modified Haagensen's technic as far as the thickness of skin flaps is concerned. We believe, as he does, that the axillary portion of the skin flaps should be as thin as possible in order to be sure that the large lymph channels leading to the axilla are not transected. However, the flaps in other areas are gradually thickened as the periphery of the dissection is reached. The insertions of the pectoral muscles are divided from the humerus and coracoid process, and the origin of the muscles released from the chest wall before dissection of the axilla is started. This allows the specimen to fall laterally of its own weight and obviates the necessity for strong traction on the specimen in order to expose the axillary contents. In addition, the clavicular portion of the pectoralis major muscle is removed, thus affording better exposure of the axillary contents. As a rule, the thoracodorsal and long thoracic nerves are preserved; however, if obvious axillary metastases exist along the subscapular vessels these structures, along with the thoracodorsal nerve and (at times) the long thoracic nerve, are sacrificed in order to permit a thorough dissection of the space between the scapula and the chest wall. At the conclusion of the operative procedure, the skin flaps are approximated, as far as possible, without tension, following which the edges of the remaining defect are fixed to the chest wall by suture and a split-thickness graft sutured in place over the defect. A stent type dressing is then em-

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From the Ellis Fischel State Cancer Hospital, Columbia.
Presented at the 98th Annual Session of the Missouri State Medical Association, April 8-11, 1956, St. Louis.

ployed and the arm is incorporated in a voluminous dressing which encompasses the entire chest.

RESULTS OF THE CONVENTIONAL RADICAL MASTECTOMY AT THE ELLIS FISCHEL CANCER HOSPITAL

The records of all primary, previously untreated cases of cancer of the female breast examined at The Ellis Fischel Cancer Hospital in 1947, 1948 and 1949 were reviewed (table 1). One hundred and twenty-six patients were judged to be operable by strict adherence to the criteria of Haagensen and Stout.[3] Thus, 33 per cent, or one third, of the patients were considered beyond hope of control by radical mastectomy when first seen, and this constitutes a real reason to be dissatisfied with radical mastectomy as the ultimate weapon in breast cancer treatment. Fifteen of the operable cases were not operated on for various reasons, such as refusal by the patient or contraindications to surgery (such as age, or extensive heart disease). When the entire group of 188 primary cases is considered, the total five year salvage rate was only one in every four patients. However, when the five patients who refused operation and the additional ten who could not be operated upon are excluded, the more accurate portrayal of the salvage rate in the entire series is fifty-two five year cures in a total of 173, or approximately one in every three patients. Of the 111 patients treated by radical mastectomy, fifty-two were well after five years, a control rate of 47 per cent in the cases operated upon. All of these patients were indigent and, as a group, presented themselves with more advanced lesions than those ordinarily seen in private practice. Two thirds of the group who were operated on were proven to have axillary lymph node metastases. Twenty-seven patients, or 38 per cent, of the seventy-three who had histologically positive axillary lymph nodes in the radical mastectomy specimen were well at five years.

TABLE 1

RESULTS OF TREATMENT FOR ALL PRIMARY CASES OF BREAST CANCER SEEN DURING 1947-1949 INCLUSIVE

		Five Year Clinical Cure	
	Number	*Number*	*Per Cent*
OPERABLE	126	52	41
Negative Nodes	38	24	63
Positive Nodes	73	27	37
Refused Rx.	5	-	-
Incomplete Rx.	10	1	10
INOPERABLE	62	-	-
TOTAL	188	52	28

We have reviewed the incidence of local recurrence in our cases (table 2). By local recurrence, we mean the appearance following radical mastectomy of tumor in the axilla or in the skin or subcutaneous tissue of the chest wall within the area bounded by the clavicle, costal margin, anterior midline and mid-axillary line. In the total of 111 cases operated on, there were twenty-one cases of known recurrence, or 19 per cent. It is to be noted that the local recurrence rate was strikingly different depending upon whether or not the axillary nodes were found to be involved. All but two of the twenty-one recurrences were associated with positive nodes, and it seems obvious that local recurrence is closely related to regional lymphatic spread. There were forty deaths within five years in the group with positive nodes. Of these, thirty-four are known to be due to cancer, and eighteen of these thirty-four had local recurrence. The mean and the median survival time for the eighteen cases with local recurrence and the sixteen cases without such recurrence are shown in table 3. The surprising feature is that there is so little difference between the two groups. Local recurrence apparently does not influence survival time, and this fact needs explanation. We doubt that case selection alone will account for it, and we are inclined to believe that occult lymphatic metastases exist in a far greater proportion of patients than in those who ultimately develop manifest recurrence.

TABLE 2

OPERATED CASES 1947-1949

	Number	*Per Cent*
Local recurrence within 5 years		
Negative nodes	2/38	5
Positive nodes	19/73	26
TOTAL	21/111	19

TABLE 3

POSITIVE NODE CASES 1947-1949

Survival Time in Months	*Mean*	*Median*
Died of cancer with local recurrence	25.6	22.5
Died of cancer without local recurrence	25.2	22.0
Died other cause	22.3	26.0

EXTENDED OPERATIONS IN THE TREATMENT OF CANCER OF THE BREAST

It is obvious from the foregoing statistics that there is every reason to search for a more effective means of treatment of breast cancer than by radical mastectomy. That others have reached the same conclusion is shown by the work of McWhirter,[6] in Scotland, who believes simple mastectomy combined with external roentgen therapy to be a superior method of treatment. In this country, Wangensteen[8] and Urban[7] have described their investigations of the surgical excision of supraclavicular and mediastinal lymphatic extensions of breast cancer in addition to the conventional radical mastectomy. In our opinion, it is unfortunate that the experimental nature of these investigations are often forgotten, even though it has not yet been established that they will result in an increased rate of cure. There is no argument with the thesis that such investigations are urgently needed. However, harm can be done if the conventional operation is abandoned prior to reasonable proof that such methods are superior.

Regarding the extended operations, it should be stressed that the internal mammary lymph node chain is composed of an average of three to five nodes on each side of the sternum, and is confined to an extremely narrow space directly on the endothoracic fascia. It is undoubtedly an inferior barrier to the progress of cancer emboli when compared with the more complex lymphatic plexus of the axilla. Operations designed to cope with such metastases entail opening the thoracic cavity, and an element of shock, increased morbidity and mortality must be considered. When the conscientious surgeon considers the pros and cons of performing mediastinal and supraclavicular dissections on breast cancer patients at the present time, we believe he will decide to await more factual data indicative of a considerable increase in curability. While there can be no question but that the surgical attack on these extensions of breast cancer should be done as a planned experiment in a few surgical centers, it appears likely that time may prove that the increased mortality of such procedures will cancel out any gain in curability.

CRITERIA OF OPERABILITY

The writings of Haagensen and Stout[3, 5] have been a major influence in the determination of the patient who should be subjected to the conventional radical mastectomy. We have just stated that approximately one third of our cases were considered to be inoperable when first seen at the hospital. During the period covered by this report (1947 through 1949) the original criteria of operability published by Haagensen and Stout[3] were strictly followed at The Ellis Fischel Cancer Hospital. These criteria have been recently revised by these authors,[5] and read as follows: Breast cancer is inoperable:

(1) When extensive edema of the skin over the breast (more than one third of the skin area) is present.

(2) When satellite nodules are present in the skin over the breast.

(3) When the carcinoma is inflammatory.

(4) When there is edema of the arm.

(5) When there are signs of distant metastases: (a) radiographic or clinical evidence of osseous metastases, (b) radiographic evidence of pulmonary metastases, (c) clinical evidence of liver metastases.

(6) When any two or more of the following signs of locally advanced carcinoma are present: (a) ulceration of the skin, (b) edema of the skin of limited extent (less than one third of the skin over the breast), (c) fixation of the tumor to the chest wall, (d) axillary lymph nodes measuring 2.5 cm. or more in transverse diameter, (e) fixation of the axillary lymph nodes to the skin or to the deep structures of the axilla.

(7) When in patients with clinically involved axillary lymph nodes: (a) a supraclavicular dissection reveals metastases in the supraclavicular lymph nodes, or (b) biopsy of the internal mammary lymph nodes reveals metastases.

These criteria are used to make a prediction of the chance of cure in the individual patient. The first six are those originally proposed in 1943 by Haagensen and Stout,[3] with the major exception that carcinoma associated with pregnancy or lactation has been dropped from the list. The prediction that is made from these criteria is that in their presence, even though treated by radical mastectomy, the patient will develop manifest recurrence or metastases within five years. This conclusion was reached by a retrospective analysis of cases; that is, the follow-up records of patients in whom a radical mastectomy was previously performed were searched for instances in which the clinical description indicated that some criterion of inoperability was present prior to the operation. A more direct approach would be to classify current case material into operable and inoperable groups, and then deliberately perform a radical mastectomy in some of the inoperable cases. There is a real need for application of this direct test rather than a retrospective one in the case of the sixth criterion, which requires that two or more signs of locally advanced carcinoma be present. The ominous significance of the first five criteria is well established, inasmuch as the tumor is either obviously outside the operative field of a radical mastectomy or just barely within it. The truth of the sixth criterion, however, is by no means self-evident. This can be appreciated by inspecting the five clinical signs that are to be measured by asking questions as:

(1) When does a minor excoriation of the skin become ulceration?

(2) When does partial immobility become fixation to the chest wall?

(3) How accurately can one measure the size of an axillary lymph node?

Blind acceptance of this criterion without direct testing may result in denial of an attempt to cure in deserving cases. Each surgeon will have to test this criterion, using his own definitions of the five clinical signs. Furthermore, he cannot use his old case material for a retrospective test. For example, Boyd and co-workers[1] have recently reported 807 primary cases, of which 581 were operable by the 1943 Haagensen and Stout criteria. Included in the inoperable remainder were sixty-seven who had been subjected to radical mastectomy. Of these, seven survived more than five years, and four of them lived nine years or more. The authors state: "The liberal rather than strict application of their [i.e., Haagensen and Stout] criteria will result in the salvage of an occasional additional breast carcinoma patient, and in the author's opinion is worthwhile."

The seventh criterion should likewise be subjected to direct testing for the reason that though tumor is found outside the field, the only prediction that can be made is that of ultimate failure without any specification as to the time interval. Even though ultimate failure is a certainty, the physician is still faced with the problem of establishing local control of the disease on the chest wall and in the axilla for the purpose of palliation. We believe that the radical mastectomy will best serve this purpose in cases falling under this criterion. Haagensen and Stout[3] stated categorically that inoperable cases should be treated by irradiation therapy. They gave two principal reasons for not utilizing radical mastectomy as a palliative procedure. The first one is as follows: "From our knowledge of the problem of the surgical attack upon cancer in general, we of course know that any attempt at radical dissection which cuts through cancer tissue is futile. The cancer cells are disseminated throughout the wound and there is the possibility of their entering the blood stream as cancer emboli. Ordinarily, operations of this kind are followed by prompt local recurrence and by the development of distant metastases. We have repeatedly seen widespread distant metastases appear within a few months after radical mastectomy performed upon patients in whom the disease was locally entirely inoperable, and quite as if the operator had produced a shower of cancer emboli." Mechanical manipulation is a more plausible explanation for the "shower of emboli" than entrance of cells into severed blood vessels. This is a risk that even operable cases must run. It is not enough to know that the risk is real; its magnitude must be known and a balance struck with the possibility of gain from the operation. Then only can it be said that radical mastectomy is contraindicated.

Haagensen and Stout[3] also stated: "Carrying out of a radical mastectomy in the cases in which the carcinoma cannot be wholly removed, actually shortens the patient's life in the majority of instances." An analysis of their material on which these statements are based reveals that the difference between their operable and inoperable groups of cases may be due to case selection. They compared 118 untreated cases judged inoperable on initial examination with 104 cases judged operable initially, treated by radical mastectomy and later reclassified as inoperable. The average survival times from alleged onset of symptoms to death were 42.3 and 32.3 months, respectively. The selection factors that may be involved have been discussed in detail by one of us.[4] To cite one example, there were twenty-eight cases of inflammatory carcinoma, of which twenty fall in the treated group and not more than eight in the untreated group. It is not surprising that there is a difference in average survival time. It should not be blamed on the radical mastectomy.

Effective palliation may be achieved by radical mastectomy in advanced cases in the form of local control of the disease, even though death may result from distant metastases. It is to be noted that among the 104 inoperable cases treated by radical mastectomy and subsequently reclassified by Haagensen and Stout[3] as categorically inoperable, the local recurrence rate was reported as 48 per cent. This means that one half of these categorically inoperable cases then obtained local control through radical mastectomy.

It seems reasonable, therefore, to simplify their criteria of inoperability. We propose that a radical mastectomy should be considered in every case in which the procedure can be carried out through grossly normal tissue and in which it will remove all of the clinically manifest disease. In borderline cases, the patient must be given the full benefit of the doubt. Strict application of the criteria of Haagensen and Stout may deny to more than the occasional patient not only an opportunity for cure, but also, for local control of the cancer. When cure is impossible, it is still the duty of the surgeon to strive for local control with the best means available. In many cases, this will be by radical mastectomy, since this can be done with a minimum of risk and with early resumption of normal life by the patient. Observation of the prolonged morbidity in patients undergoing irradiation of the primary tumor has led us to the conclusion that palliative radical mastectomy probably should be employed more often than it has been in the past.

SUMMARY

1. Radical mastectomy is still the preferred method of treating cancer of the breast.

2. The place of extended operations (supraclavicular and mediastinal) is yet to be determined.

3. Radical mastectomy should be employed whenever there is the slightest possibility of cure and when the operation can be carried out through a grossly uninvolved field.

4. Radical mastectomy, through local control of the primary lesion, affords excellent palliation in the majority of patients who die of distant disease.

909 University Ave.
The Ellis Fischel Cancer Hospital.

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SEARLE

Poliomyelitis in Missouri in 1955

An Epidemiologic Summary

E. A. BELDEN, M.D., *Jefferson City*

THE PURPOSE OF this report is to record and comment upon certain pertinent aspects of poliomyelitis as it occurred in Missouri in 1955, particularly in regard to poliomyelitis vaccination. Only 267 cases were reported as having onsets in 1955, the smallest number since 1947. One hundred and thirty-nine were paralytic, 128 nonparalytic.

When the question of poliomyelitis vaccine safety arose late in April, 1955, as a result of the occurrence of poliomyelitis in recently inoculated children in certain western states, a nation-wide intensive investigation of all poliomyelitis cases was instituted immediately. Thanks to the assistance of physicians, nurses, health departments and others, such investigations were carried out in Missouri. As a result, the epidemiologic data on poliomyelitis in Missouri in 1955 are more detailed and accurate than for any previous year. In addition to the usual clinical and epidemiologic information, diagnostic laboratory services were made available jointly by the Virus Research Section, Department of Pediatrics, Kansas University Medical Center, and the Kansas City Field Station of the Public Health Service.

One aspect of the following analyses subject to question relates to the paralytic status of poliomyelitis patients. In the absence of uniform physical therapy evaluation of patients (as carried out in the 1954 poliomyelitis vaccine field trial), paralytic status is recorded as reported by the attending physician. The reports would indicate that most physicians do not diagnose poliomyelitis as paralytic unless muscle weakness persists beyond the acute phase of illness.

POLIOMYELITIS IN VACCINATED INDIVIDUALS

Eleven cases of poliomyelitis were reported among children who had received one or two injections of poliomyelitis vaccine in 1955. One case was reported among the 9,500 children who were vaccinated during the vaccine field trial in the spring of 1954, but the final diagnosis of this child proved to be tuberculous meningitis rather than poliomyelitis.

In table 1 an attempt is made to classify poliomyelitis in vaccinated children according to paralytic status and according to the time interval between last vaccine inoculation and onset of illness. Experience elsewhere in the nation during the spring of 1955 would indicate that infection resulting from inoculation with vaccine containing live virus usually will become apparent in less than fourteen days. It seems reasonable to assume, therefore, that cases occurring within twenty-eight days of inoculation might have a causal relationship to the vaccine. Cases occurring more than twenty-eight days following vaccine injection are probably coincidental and are referred to as vaccine "failures" in table 1, although all of them had only one vaccine inoculation.

TABLE 1

POLIOMYELITIS IN VACCINATED CHILDREN, BY PARALYTIC STATUS AND BY TIME INTERVAL FROM VACCINATION TO ONSET OF DISEASE—MISSOURI—1955
(All cases were in age group 4 through 9)

	Total	*Vaccine-Associated 28 days or less from last injection to onset of disease*	*Vaccine "Failures" More than 28 days from last injection to onset of disease*
TOTAL	11	3	8
Paralytic	3	1	2
Nonparalytic .	8	2	6

Of the three cases having onsets within twenty-eight days of vaccine inoculation, one was definitely paralytic and two were definitely nonparalytic. In none of these cases is there sufficient factual data to clearly incriminate or absolve the vaccine. Circumstantial evidence, however, would indicate that the paralytic case may have been infected by vaccine. This patient received two vaccine inoculations seven days apart during the latter part of April, 1955, and became ill the day he received his second injection. Unfortunately, the lot number of the vaccine used for the first inoculation could not be determined, but vaccine of the same manufacturer was implicated elsewhere in the nation. No specific poliomyelitis laboratory work was done on this patient, but the child had definite paralysis and there is no reason to question the diagnosis.

In the two remaining cases, both nonparalytic, having onsets within twenty-eight days of vaccination, there are reasons to doubt that vaccine caused infection. One child received vaccine April 26 and May 17. The onset of illness was May 19, giving a rather long incubation period from April 26 and a short incubation period from May 17. No virus was isolated from a feces specimen from this patient and, in the absence of paralysis, the attending pediatrician was reluctant to diagnose this case as poliomyelitis. The other patient received vaccine on April 28 and August 15 and became ill August 29. He was given his second vaccine injection be-

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From Missouri Division of Health, Jefferson City.

cause a younger brother was diagnosed as having nonparalytic poliomyelitis with onset August 12. Poliomyelitis virus was not isolated from the vaccinated patient or his brother. The serum neutralization titers of the vaccinated patient were relatively high (type 1, 1024; type 2, 64; type 3, 64) four days after onset and remained the same two weeks later. The lack of paralysis and the laboratory findings in this case cast some doubt on the diagnosis and, whatever the infection, it was quite likely acquired from the brother.

ATTACK RATES IN VACCINATED AND UNVACCINATED CHILDREN

Except for a relatively small amount of vaccine sold commercially in the spring of 1955, all poliomyelitis vaccine administered prior to or during the summer and fall of 1955 was given to school children in specific grades under programs sponsored by the National Foundation for Infantile Paralysis. In the spring of 1954, 9,500 Missouri second grade children received three vaccine injections during the vaccine field trial. These children were 8 and 9 years old during the summer and fall of 1955. During the school vaccination program in the spring and summer of 1955, an additional 155,000 children received one or two vaccine inoculations. Most of these were in the first and second grades, but those in third and fourth grades were included in the field trial areas. There were thus approximately 164,500 children who received one or more injections before summer in 1955. They ranged in age from 6 through 9. Missouri's estimated population in this age group is 340,000, leaving approximately 175,500 children who were not vaccinated prior to or during the summer of 1955. The number of cases and rates in vaccinated and unvaccinated children in this age group (6 through 9) are shown in table 2. Four cases (one each paralytic vaccinated, paralytic not vaccinated, nonparalytic vaccinated and nonparalytic not vaccinated) shown in table 2 had onsets prior to June. If these cases were excluded on the grounds that most vaccine injections were given in May and could not be expected to be effective before June, the difference in rates in vaccinated and unvaccinated children would increase in favor of the vaccinated children.

TABLE 2

POLIOMYELITIS IN CHILDREN AGES 6 THROUGH 9, BY PARALYTIC STATUS AND VACCINATION STATUS, WITH RATES PER 100,000—MISSOURI—1955

	Total		*Paralytic*		*Nonparalytic*	
	Number	*Rate*	*Number*	*Rate*	*Number*	*Rate*
Vaccinated (164,500)	9	5.5	2	1.2	7	4.3
Not Vaccinated (175,500)	35	19.9	13	7.4	22	12.5

There is a significant difference between the total poliomyelitis attack rates in the vaccinated and unvaccinated groups ($P < 0.01$). The difference in attack rates for paralytic poliomyelitis in the vaccinated and unvaccinated groups is even more striking, representing an 84 per cent reduction in the number of paralytic cases in the vaccinated group. Several other states have reported provisional data showing similar effectiveness of one or two injections of vaccine.

RESULTS OF LABORATORY EXAMINATIONS

Laboratory examinations consisted of isolation and typing of poliomyelitis virus from feces specimens and a determination of serum neutralization (antibody) titers on paired (acute and convalescent) blood specimens. Tissue cultures of monkey kidney cells are used in these tests.

A summary of the results of laboratory tests is shown in table 3. There was no marked variation in the proportion of patients tested in regard to paralytic status or age.

TABLE 3

NUMBER AND RESULTS OF LABORATORY EXAMINATIONS OF 112 POLIOMYELITIS CASES—MISSOURI—1955

	Total	*Paralytic*	*Nonparalytic*
Patients having feces examinations	109	52	57
Feces examination results:			
Negative	71	29	42
Non-typing virus	7	3	4
Positive, Type 1	15	10	5
Positive, Type 2	3	1	2
Positive, Type 3	13	9	4
Patients having serologic examinations	51	25	26
Serologic examination results:			
Less than threefold rise in titer	48	24	24
Threefold rise or more in titer for:			
Type 1	2	1	1
Type 2	-	-	-
Type 3	1	-	1

Poliomyelitis virus was recovered from twenty (38 per cent) of fifty-two patients with paralytic disease and from eleven (19 per cent) of fifty-seven patients with nonparalytic disease on whom feces specimens were run. In seven additional specimens evidence of virus was found but it could not be typed and so cannot be considered poliomyelitis virus. Only one feces specimen was submitted per patient. Examination of multiple specimens would presumably result in a higher yield of virus isolations.

Type 1 and Type 3 virus predominated in both paralytic and nonparalytic cases. In none of the seven vaccinated cases from whom feces specimens were submitted (all nonparalytic) was poliomyelitis virus isolated. However, one specimen revealed a non-typing virus.

Analysis of the serum neutralization tests is more difficult. Antibody titers on paired sera (collected fourteen to twenty-eight days apart) frequently showed a twofold fall without apparent reason. Presumably, therefore, a twofold rise in titers is likewise not significant. Evaluation of the limited serologic tests is also made difficult by the variation in time between onset of illness and collection of the first specimen.

Of the fifty-one patients from whom paired sera were collected, only three showed a threefold or greater increase in type-specific antibodies, two for Type 1 and one for Type 3. In two of these cases (one Type 1 and one Type 3) the corresponding virus type was isolated from feces specimens.

Serologic tests were performed on three of the vaccinated children reported as having poliomyelitis. Their ages were 5, 6 and 7 and all were nonparalytic with negative virus isolations. All three showed relatively high antibody titers in the first specimen and no rise in the second.

LABORATORY FINDINGS AMONG HOUSEHOLD CONTACTS

In five families feces specimens were collected from household contacts of the initial case. In three families the initial case was nonparalytic and none of the cases or contacts revealed poliomyelitis virus in the feces. In the other two families the initial (index) case was paralytic. In one of these the patient himself was not tested but three of five household members had Type 3 virus in their feces, although none of them became ill. In the other family, the patient had Type 1 virus, one family contact had Type 3 virus, and three other members of the family were negative.

POLIOMYELITIS DEATHS

Eight acute poliomyelitis deaths were reported for 1955, giving an over-all rate of three deaths per 100 cases (8/267 x 100). Two deaths occurred in children age 6 and 15, and the remaining six in individuals between the ages of 20 and 39. Since there were seventy-five cases within the ages of 20 and 39, the case fatality rate for this age group was eight deaths per 100 cases.

CONCLUSIONS

Of eleven cases of poliomyelitis occurring in vaccinated children in 1955, the possibility of infection through vaccine must be considered in three cases having onsets within twenty-eight days of vaccination. One of these three cases was paralytic, the other two nonparalytic. The available evidence indicates that the paralytic case may have resulted from the vaccine but that the two nonparalytic cases probably did not. The eight cases of poliomyelitis in vaccinated children occurring more than twenty-eight days following last vaccination are classified as vaccine "failures," although all of them had received only one injection of vaccine prior to the diagnosis of poliomyelitis.

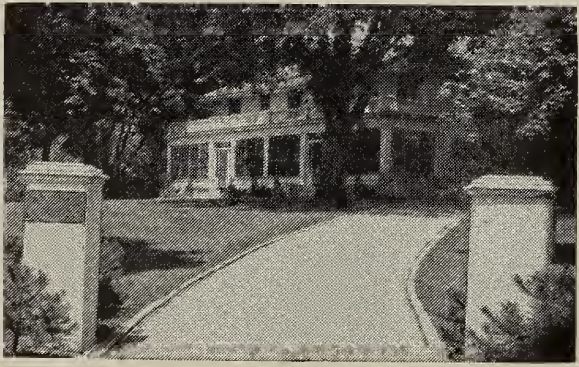
The over-all poliomyelitis attack rate in unvaccinated children age 6 through 9 was about four times the rate in vaccinated children of the same age. The attack rate for paralytic poliomyelitis among unvaccinated children age 6 through 9 was six times that of vaccinated children of the same age. This represents a reduction of 84 per cent in paralytic poliomyelitis in the vaccinated group.

Poliomyelitis virus was recovered from 38 per cent of paralytic cases tested and 19 per cent of nonparalytic cases tested. The comparatively low proportion of isolations in nonparalytic patients points up the relative difficulty of making a firm clinical diagnosis in the absence of paralysis. However, the recovery of virus in a significant number of nonparalytic and asymptomatic cases is confirmatory evidence of infection without paralysis.

The determination of serum neutralization (antibody) titers of paired sera, as carried out in 1955, was of little value in confirming clinical diagnoses. This was largely because of the difficulties involved in obtaining the first specimen early in the disease and the second specimen two to four weeks later when the patient had usually returned home from the hospital. It appears that the examination of repeated feces specimens for virus isolation and typing would be a more effective and practical aid in the diagnosis of poliomyelitis than neutralization tests on paired sera.

State Office Building

ADDENDUM: No poliomyelitis is reported to have occurred following the administration of more than 300,000 inoculations of poliomyelitis vaccine in Missouri between September 1, 1955, and February 27, 1956. Vaccine released since September 1, 1955, has been subject to revised testing and licensing standards.



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Postgraduate Review

Recent Advances in Urology

WILLIAM F. MELICK, M.D., AND JOSEPH J. NARYKA, M.D., *St. Louis*

IN THIS DAY of rapid changes and advances in the many different specialties of Medicine, it is often difficult to keep abreast of the developments in all fields. It was felt that perhaps a review of recent urologic developments might prove helpful to the nonurologic specialist and to the general practitioner. Only those things which have progressed to the point that they could be of definite value to the clinician are reported.

DIAGNOSTIC MEASURES

Improvement in optics has made it possible to check the entire urethra and bladder with a minimum of discomfort to the patient. The development of the newer derivatives of tri-iodobenzoic acid has made it possible to secure better visualization of the upper urinary tract by intravenous urograms with far less chance of severe reaction. One note of caution might be mentioned, and that is that with the use of higher concentrations of these media, the intravenous urogram measures only the blood flow and not tubular function. Thus, any interpretation of the renal function based upon the anatomic filling of the kidney is no longer accurate.

An interesting method of diagnosis recently has been revived for those rare cases in which there is a nonfunctioning kidney and a ureteral block which makes it completely impossible to pass a ureteral catheter or inject dye beyond the point of obstruction. In such cases it is frequently possible to pass a needle through the skin of the back and into the pelvis of the kidney and it is then possible to inject dye and secure a pyelogram. This has been called percutaneous pyelography. We have cautiously tried the procedure when there is a large hydronephrosis. The ease of obtaining a picture and the diagnostic accuracy are amazing. When there is no marked enlargement the reverse frequently is true.

Translumbar aortography, originally proposed as a means of visualizing the renal circulation, is now commonly used as a means of visualizing aortic aneurisms and blocks in the aorta or its major branches. The technic has been rendered far safer through the development of better dyes, namely 70 per cent Urokon and 50 per cent Miokon. A note of caution should be sounded: while aortography is a valuable diagnostic adjunct, it should not be used indiscriminately, nor by one not trained in its use.

Presacral air injection, or presacral pneumography, has largely replaced perirenal air insufflation because of its greater safety. It can be done under local anesthesia and sedation with little discomfort to the patient. One finger is placed in the rectum and the junction of the sacrum and coccyx palpated. The skin is infiltrated with novocain and a needle is then inserted to lie between the rectum and the hollow of the sacrum. From 200 to 600 cc. of air, or carbon dioxide, may then be injected and a series of x-rays taken. This usually will visualize adequately the adrenal glands. It is also of value in visualizing retroperitoneal tumors.

The use of the urinary 17-Ketosteroids has become of more value in the diagnosis of the adrenogenital syndrome. This syndrome can now be diagnosed even early in life by the demonstration of increased secretion of urinary 17-Ketosteroids since even in the first few weeks of life the output is usually increased to 2 to 5 mgs. per day, compared to the normal level of less than 0.5 mg. per day. With other types of abnormal sexual development, extensive anatomic studies, with surgical biopsy of the gonads, may be necessary for proper diagnosis. Recent work has demonstrated, however, that in these cases, the proper sex may readily be determined by a simple skin biopsy or biopsy of the oral mucosa. A female will have large masses of chromatin in the nuclei of the cells, while the male will have an inconspicuous amount.

KIDNEYS

The use of the needle biopsy of the kidney, while not as yet generally accepted, offers a more accurate diagnosis, particularly in medical disease of the kidney, than roentgenologic and functional studies alone. The transplantation of a kidney has been demonstrated to be impossible unless one is fortunate enough to have identical twins. The ability to maintain glomerular filtration, at least in experimental animals by means of a pedicle graft, even in the face of complete occlusion of the renal arteries and veins, is now an established fact. As yet this has no clinical application. The fragmentation of renal stones in animals by the cystoscopic route, utilizing ultrasonic vibrations, is also possible and leads to the interesting speculation that some of the renal calculi that are now considered surgical, may be, in the future, removed by such fragmentation.

The prevention of kidney stones, long the bane of the urologist's existence, may also be near solu-

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tion. The accurate determination, not only of the components of the calculus, but also just where they are in the calculus, is now possible by a new physical technic using polarized light. For stones containing calcium, and about 90 per cent of all kidney stones do contain calcium, it is possible to increase the solubility of calcium phosphate by increasing glucuronide excretion in the urine. This can be done by the administration of salicylates, either aspirin or salicyamide. The complete removal of all renal calculi, once surgery is elected as the treatment of choice, has long been recognized as the primary measure of prevention of recurrence of the stones. Attempts at securing portable pictures have often been unsatisfactory in the past. A recent suggestion that the film be put in a small flexible cardboard cassette than can be molded around the kidney and the picture taken with an ordinary portable x-ray unit has resulted in excellent diagnostic pictures. The smallest remaining fragments are shown and their exact location is easily seen.

In kidney infections due to organisms resistant to the usual therapeutic measures, usually B. proteus, S. fecalis or Pseudomonas, a nitrofurantoin has been introduced under the name of Furadantin which has been highly effective. The medical treatment of renal tuberculosis has been standardized with the use of bi-weekly injections of Streptomycin and the oral administration of PAS and INH. It has long been known that chronic pyelonephritis may end up with a contracted and ischemic kidney. The recent recognition that a patient with an acute or chronic pyelonephritis should have prolonged treatment on milder urinary antiseptics such as the newer sulfonamides should do much to minimize the hypertension, renal contracture and loss of renal function that at present is seen far too often in this group of patients. The patient should have the benefit not only of the prolonged medication, but should have careful, periodic examinations and urinalyses.

The treatment of anoxic nephrosis also has been better standardized, with the result that usually these unfortunate patients are no longer drowned by the treatment. In general, fluid restriction, prevention of infection, prevention of protein breakdown by large amounts of carbohydrates, recognition of the harmful effects of a rising potassium and possibly free blood phenols, are all that are necessary. In some cases dialysis by means of the artificial kidney, continuous gastric lavage or exchange transfusions are necessary to remove the harmful effects of hyperpotassemia. It is important not to confuse the occasional patient seen in oliguria due to a water and salt deficit since in this case the patient needs salt and water.

URETER

The increasing reports in the literature reflect the increasing awareness of the urologist that cancer of the ureter may be responsible for an unexplained hematuria. The Foley bulb pyelo-ureterogram clearly demonstrates ureteral pathology, even though it may be missed by routine retrograde pyelograms or intravenous urograms.

It is also well to note that urologists are showing an increased awareness that the majority of ureteral injuries can be repaired and the renal function preserved rather than correcting the damage by simple nephrectomy. An ever increasing number of such injuries is seen, probably because of the increasing trend toward radical surgery in the treatment of carcinoma of the cervix.

BLADDER

Treatment of carcinoma of the bladder by means of radio-active cobalt in the form of sutures which can be placed accurately under the base of the tumor offers much promise. The injection of radio-active gold under the base of the tumor likewise promises to be of decided help in many cases. While the question of which case of bladder cancer should be handled by radical operation remains a major and, in our opinion, a yet unsolved problem, the technics of artificial bladder formation have reached a high degree of technical profection. Several principles have definite acceptance. The use of a reservoir, isolated from the fecal stream, will minimize infection and hyperchloremic acidosis. The present choices are between those operations which preserve urinary continence such as a rectosigmoidal bladder with a colostomy, or those utilizing a segment of ileum and reuniting the fecal stream at the expense of urinary control. The latter operations have been made possible by the development of the Rutzen type bags which cement to the skin allowing the patient a fair degree of comfort and dryness.

Hunner ulcer of the bladder continues to be a distressing problem, leading as it so often does to a contracted, spastic bladder that holds little urine. In many of these unfortunate patients who do not respond to the usual measures of silver nitrate instillations and hydraulic distension, or even to transurethral fulguration, the transurethral injection of cortisone at periodic intervals has given welcome relief.

URETHRA

While no new measures have been developed for its treatment, the syndrome commonly called hyperplastic posterior urethritis in women should be mentioned. This condition gives rise to urinary burning, frequency, nocturia and dysuria. It is often misdiagnosed as an ordinary cystitis or recurrent, chronic cystitis and the usual urinary antiseptics are given without relief. The other common mistake, because the urine is frequently not infected, is to pass these unfortunates off as neuropsychiatric patients. Simple cystoscopy with careful inspection of the bladder neck will show the hyperplastic tissue, tabs, polyps and contracture of the bladder neck. For the vast majority of these patients, simple dilatation of the urethra, instillations of silver nitrate and hydraulic distensions of the bladder will give relief. If these measures are not successful, transurethral fulguration or resection of the hyperplastic tissue will relieve the complaints. Periodic follow-up is usually necessary irrespective of the treatment used.

PROSTATE

It has recently been recognized that an elevation of the acid phosphatase does not always indicate a carcinoma of the prostate as is commonly taught. Again, the laboratory scientists have come to the rescue with newer methods of determination and the test restored to its original usefulness. The modification consists in determining the prostatic fraction of the serum acid phosphatase.

The diagnosis of early carcinoma of the prostate continues to be troublesome. Needle biopsy of the suspected nodule may be satisfactory but, as in all needle biopsy procedures, a negative piece of tissue may indicate merely that the needle has missed the nodule. Recent reports on the transrectal route, and our own experiences, indicate that this is a simple, safe and accurate method of securing a prostatic biopsy. Under general anesthesia the rectal sphincter is dilated and a suitable retractor introduced. The nodule is palpated and a 1 to 2 cm. incision made through the rectal wall down to the prostatic nodule. The nodule is then grasped with a forceps and removed for biopsy. The rectal incision is lightly closed with fine, interrupted gut sutures. If the biopsy proves to be carcinoma, radical prostatectomy can be carried out in several weeks with no unusual operative difficulty.

In the treatment of cancer of the prostate which is not suitable to radical operative procedures, good results have been obtained in the use of radio-active gold. The treatment is not, as yet, completely standardized and has definite hazards. However, in many reported cases in the literature, life and comfort of the patient has definitely been prolonged.

ADRENALS

With cortisone, it is now possible to suppress the androgenic function of the adrenal glands. This is useful in the adrenogenital syndrome and in the inhibition of carcinoma of the prostate which has become refractory to androgens and castration. From the many reports in the literature it is obvious that this so-called medical adrenalectomy gives rise to many distressing complications and a decided mortality. It has been reported, and we have had cases of our own, that show a marked beneficial response to adrenalectomy when the prostatic carcinoma and its metastases no longer respond to castration and estrogen administration. The problem has been one of trying to pick the patient with a hormonal dependent tumor, since only this group could be benefited by bilateral adrenalectomy. Since almost all of these patients have osseous lesions, it has recently been shown that a study of calcium urinary excretion can be used to predict the response to total adrenalectomy. The dependency may be judged by placing the patient on a fixed calcium intake of 200 mgs. a day and determining the urinary calcium excretion for twenty-four hour periods. In prostatic cancer, the patient is then given 100 mgs. of testosterone a day for three days. A positive reaction shows a hypercalcinuria and systemic reactions consisting usually of malaise, increase in pain, pyrexia and lethargy. A patient with a positive response can be expected to get good results from total adrenalectomy. Such patients, following the surgery, are readily maintained with oral cortisone preparations and careful following of electrolytes, adding those as needed, which usually are salt and potassium.

TESTES

Studies in the field of fertility have led to much new knowledge of the normal, fertile male, but unfortunately have led to little improvement of available therapy for sterility. Perhaps the best that has evolved is the realization that normal standards for judging the semen specimen have not been accurate and that deficiencies in number, for example, may well be made up for by an increase in motility and longevity. In carefully selected cases, the so-called "rebound phenomenon" following the administration of a massive dose of testosterone over a ten to fifteen week period offers the best possible hope in patients with poor semen specimens. It should be remembered, however, that the results here are uncertain and percentage-wise not great.

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Grand Rounds Conference

Bacterial Endocarditis

Washington University School of Medicine
and the
Barnes and Wohl Memorial Hospitals

Dr. Sol Sherry: Although bacterial endocarditis is no longer identified with the almost hopeless prognosis which characterized the disease prior to the introduction of antimicrobial agents, and particularly penicillin, it still continues to be a serious and important medical problem. The case to be considered constitutes a good example of some of the features of bacterial endocarditis and will provide a suitable background for discussion. Dr. Vavra will present the patient.

Dr. John D. Vavra: N. O. (B. H. No. 266872), is a white single student, 17 years of age, who was admitted to the Wohl Memorial Hospital on February 4, 1956, complaining of fever, malaise, anorexia and pain in the left hip. His mother states that her pregnancy was uneventful and specifically denies any history of rubella or other infectious disease during the gestational period. The delivery was uneventful and the patient though small was apparently normal at birth. When he was 3 months of age, however, he contracted measles from one of his siblings. He was extremely ill, was cyanotic and it was not expected that he would survive, but eventually he recovered. When he was 1, and again at age 2, he had illnesses described as pneumonia. He continued to be quite tiny, weighing only eleven pounds at the age of 2.

From then until he was 6, he did reasonably well. At that time, a relative, who was a graduate nurse, was holding him on her lap and felt a thrill over his chest. He was taken shortly thereafter to the family physician who noted a murmur, but advised the patient's parents that there was no cause for alarm in view of the fact that he was getting along well; however, limitation in the boy's activities was advised. Therefore, as the patient grew up, he did not engage in physical activities and was not allowed to play with other children. His development was slow but satisfactory and, although he had no further cyanosis, he occasionally became dyspneic. Aside from these infrequent episodes, the only other suggestion of cardiac impairment was his habit of sleeping on two pillows.

The present illness began approximately seven weeks prior to admission when the patient acquired a rather severe upper respiratory infection with which were associated malaise, fever and moderate anorexia. He continued going to school despite the persistence of his symptoms; three weeks prior to entry he developed a toothache which he thought might be responsible for at least some of his symptoms. He consulted a dentist who extracted the tooth; no antibiotic was administered prophylactically prior to or after extraction. Shortly thereafter there occurred an increase in malaise and in ease of fatigability, and a loss of interest in school work which normally the patient enjoyed. He began to have night sweats which were so marked as to require him to change pajamas twice each night, but he did not take his temperature.

He continued going to school and three weeks before admission he had another tooth extracted, again without prophylactic antimicrobial therapy. The patient's symptoms worsened and six days prior to entry he consulted his family physician who referred him to Dr. Massie for examination. Dr. Massie found that the patient's temperature was elevated, and elicited a history of urinary frequency, but urinalysis was normal. In view of the clinical findings, the possibility of subacute bacterial endocarditis was entertained, and the patient was advised to record his temperature four times daily, and to have his physician follow his course carefully with a view toward hospitalization if the fever persisted.

For the next few days his temperature was within normal limits each morning but rose to levels of the order of 102.5° F. each afternoon; the night sweats persisted and one day before admission the patient developed sudden severe pain in the left hip which hindered his walking. Dr. Massie was again consulted and the patient was immediately hospitalized.

At the time of admission, the temperature was 37° C., pulse 120, respirations 18 and blood pressure 120/40. The patient was a well developed, asthenic boy who appeared seriously ill. The skin was relatively dry and there was an acneiform eruption over the face. No petechiae, Osler nodes, Janeway spots or splinter hemorrhages were noted. The fundi appeared normal. The throat was slightly injected but no exudate was present. There was no lymph node enlargement. Examination of the chest

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[*] Medical Grand Rounds, participated in by the attending and house staffs and by senior medical students, are held at 9:30 a.m. every Thursday during the school year in the auditorium of the Wohl Memorial Hospital. All interested physicians are invited to attend. The case herewith presented was discussed on February 9, 1956, and the discussion recorded and subsequently edited for publication by Dr. Robert J. Glaser.

revealed no changes from the normal on percussion and auscultation over the lung fields. The cardiac findings were significant in that the heart was slightly enlarged, left border dullness being 8 cm. from the midsternal line in the fifth interspace. The apical impulse was easily palpable. A systolic thrill was felt over the entire precordium but was maximal over the second and third interspaces, just to the left of the sternum; over the same area was heard a grade 6 harsh systolic murmur which was transmitted upward and could be heard over the neck vessels. Two observers heard a faint early blowing diastolic murmur to the left of the sternum on the first hospital day, but it has been heard only once since. Abdominal examination revealed the splenic edge 3 cm. below the left costal margin. Some tenderness to pressure was elicited over the left buttock, but the patient experienced no pain on active or passive motion of the left hip. The remainder of the physical examination was not remarkable.

The significant laboratory data included a hemoglobin of 11.6 gm. per cent, and a leukocyte count of 11,500 with some left shift in the differential. The urine was normal, and a corrected erythrocyte sedimentation rate was 4 mm. per hour. The antistreptolysin O titer was 100 units, and the C-reactive protein 1 plus. The electrocardiogram was interpreted as being compatible with left ventricular enlargement. Throat culture revealed predominantly alpha-hemolytic streptococci.

During the patient's first twenty-four hours in the hospital, eight blood cultures were obtained. On the second hospital day, his temperature rose rapidly to 40° C., and he was placed on a therapeutic regimen including 2,000,000 units of crystalline penicillin intramuscularly every three hours and 0.5 gm. of streptomycin intramuscularly every six hours. The clinical diagnosis of subacute bacterial endocarditis was soon substantiated when all eight blood cultures were positive for a strain of alpha-hemolytic streptococcus; the organism was found to be relatively resistant to both antibiotics, and in order to enhance the serum penicillin levels, probenecid (benemid) was given in a dose of 0.5 gm. every six hours.

On the fifth day after the institution of antibiotic therapy, the patient's temperature returned to normal and he appeared clinically improved. Blood cultures became negative on the fourth day after treatment was begun, and it is planned to continue the present treatment schedule for at least four weeks.

Dr. Sherry: Dr. Powers, would you discuss the radiologic findings?

Dr. William Powers: Posterior, anterior and lateral films of the chest were made on the day after the patient was admitted. The bony thorax appeared normal as did the aortic arch. Moderate cardiac enlargement, both right and left ventricular in character, was seen, but there was no definite left auricular enlargement. The pulmonary vessels were moderately dilated.

In the presence of left and right ventricular enlargement, and with the cardiac findings on physical examination, interventricular septal defect seems the most likely diagnosis. Had there been obvious left auricular enlargement one would have to consider seriously patent ductus arteriosus, but the latter diagnosis seems improbable under the circumstances.

Because of the history of sudden pain in the left hip, films were made of the pelvis but no abnormality was noted.

Dr. Sherry: Thank you. Dr. Massie, this is your patient. I wonder if you would open the discussion, giving us your views on the nature of the cardiac lesion and your comments on the clinical problem in general.

Dr. Edward Massie: Insofar as the cardiac lesion is concerned, I think the boy has an interventricular septal defect. He has the characteristic finding of a loud, harsh systolic murmur, heard with maximum intensity in the third and fourth left intercostal spaces near the sternum. The diastolic component, which has been described on several occasions, is comparatively insignificant. Although the second pulmonic sound is accentuated, this finding is not unusual in patients in this age group. Other possibilities that entered into the differential diagnosis included interauricular septal defect and patent ductus arteriosus; in the latter condition there is usually a continuous machinery-type murmur, not present in this case. Moreover, in those instances in which the classical murmur is not audible, the systolic component is usually maximal in the second left interspace. Interauricular septal defect often is notable for the absence of a striking murmur on auscultation, but even if a murmur is heard, it is usually much less loud than the one observed in this case.

The electrocardiogram was normal except for high voltage in the left ventricular leads. This finding might merely reflect the fact that the patient has a thin chest and some tachycardia, but because the x-ray studies indicate some left ventricular enlargement, the high voltage in the electrocardiogram may be taken likewise to connote left-sided enlargement.

In terms of the pertinent clinical problem—the presence of subacute endocarditis—it is of interest that the patient was not referred to me because of the symptoms suggestive of infection but rather for diagnosis of his cardiac lesion. As Dr. Vavra has said, I was impressed by his flushed face and hot skin, and after finding his temperature to be elevated, I considered subacute bacterial endocarditis as a likely possibility. The history of recent dental extractions without prophylactic antibiotic reinforced this view. Consequently, after observation during the next few days indicated persistence of fever, hospitalization was instituted, and none of us was surprised when the blood cultures were reported to be positive.

Dr. Sherry: Thank you, Dr. Massie. This patient was selected for presentation with two purposes primarily in mind: first, to review the present concepts regarding the pathogenesis of subacute bacterial endocarditis and, second, to discuss the therapeutic management of the disease. Dr. Brent Parker has been working on the experimental production of subacute bacterial endocarditis and I have asked him to review some of the recent experimental work in this field and to discuss his own investigations.

Dr. Brent M. Parker: Experimental studies on bacterial endocarditis were begun as early as 1886, and followed two lines. Some investigators damaged the cardiac valves and then injected bacteria, generally streptococci. Others injected multiple large doses of streptococci into animals with undamaged endocardium. With both technics it was found that bacterial endocarditis resulted in varying numbers of animals. In 1938 Kinsella[1] attempted to induce bacterial endocarditis by the injection of nonhemolytic streptococci, but was unable to do so. When, however, he damaged the mitral and aortic valves by insertion of a suitable instrument through the carotid artery, he noted that the injection of streptococci was followed in a large percentage of animals by endocarditis. In 1946 Dick[2] was able to cause bacterial endocarditis in animals, not subjected to endocardial trauma, merely by injecting large amounts of bacterial culture. Thus Kinsella and Dick confirmed the earlier work, but at the same time demonstrated that consistent results were not easily obtained when bacteria alone were injected. Gowdy[3] has postulated that the repeated administration of streptococcal cultures may damage the valves, either by toxic or immunologic means, and give rise to endocarditis in some animals.

More recent work has been characterized by different approaches. In 1950 Highman[4, 5] subjected rats to pressures simulating those at an altitude of 26,000 to 27,000 feet. The animals were placed in the "high altitude" chamber for four hours per day for a period of thirty days, and then were given a single injection of streptococci. Sixty-six per cent of the rats so treated developed bacterial endocarditis whereas only 15 per cent of the animals that received bacterial injections alone developed the disease. Since it is well known that prolonged exposure to high altitudes results in increased cardiac output, polycythemia, cardiac hypertrophy and adrenal cortical hyperplasia, Highman attempted to separate the role of these factors in the pathogenesis of experimental endocarditis. He produced polycythemia in one group of animals by giving them cobalt, and caused in a second group anoxia, preventing secondary polycythemia with frequent phlebotomies. A third group of rats received cortisone. In none of these three groups was the injection of bacterial culture identified with an increased incidence of endocarditis. Hyland concluded that polycythemia with increased cardiac output and anoxia led to endocardial damage and were probably responsible for the enhanced occurrence of endocarditis in rats injected with bacteria after exposure to simulated high altitudes. The situation is not unlike that in a number of forms of congenitial heart disease in which both anoxia and polycythemia are characteristic; significant numbers of such patients develop bacterial endocarditis.

In 1950 C. Walton Lillehei[6] at the University of Minnesota noted that a single arteriovenous fistula created in the extremities of dogs for another purpose, became the site in one to two months of spontaneous endocarditis in a moderate percentage of the animals. Pursuing this lead he created bilateral femoral or iliac A-V fistulae or a single aortic-vena caval fistula, and thirty days after the operation injected streptococci intravenously each day for one week. Using this technic he was able to produce endocarditis in nearly 100 per cent of animals. Control dogs, without fistulae, did not develop endocardial lesions. Lillehei was unable to produce bacterial endocarditis in dogs in which septal defects were created prior to bacterial injection, even though the injections were continued for as long as sixty-four weeks. He postulates that the critical factor in addition to the injection of bacteria is the cardiac work load, and is of the opinion that the artificially created septal defects do not enhance cardiac work to a degree sufficient to lead to endocarditis. His concept is consistent with the observation in man that atrial septal defects are infrequently associated with bacterial endocarditis in comparison with other congenital lesions which cause a greater strain on the heart, viz., ventricular septal defect or patent ductus arteriosus.

Lillehei's views are supported by the studies of Gowdy[3] in which it was found that six hours after A-V fistulae were produced, slight to moderate gross and microscopic edema and subendocardial hemorrhage, without cellular infiltration, were demonstrable.

Our own investigation is still in the formulative stage. Dr. John Smith and I, in collaboration with two senior medical students, Gordon Taylor and William Hutchinson, hope to produce bacterial endocarditis in order to test the therapeutic effects of intravenous streptokinase on the endocardial lesions. If the intravenous streptokinase results in dissolution of the fibrin layer about the vegetations, it is thought that the bacteria therein would be more readily exposed to the action of drugs being used, and consequently be more rapidly killed. To date we have created a single femoral A-V fistula in each of two dogs, and bilateral fistulae in the third. We were unable to induce bacterial endocarditis in the first two animals but the third dog developed a high fever, a systolic murmur and cardiac failure. One day before it died a blowing diastolic murmur was heard for the first time, and at autopsy there was a large vegetation on the aortic valve and rupture of one of the valve cusps. We have two other animals under study at present which have positive blood cultures for streptococcus viridans, the organism which we are injecting, but no clinical evidence of bacterial endocarditis.

Dr. Sherry: Thank you, Dr. Parker. We are glad to welcome here today Dr. Middlebrook, formerly of the Rockefeller Institute of New York and now Director of the Laboratories at the National Jewish Hospital, Denver, Colorado. Dr. Middlebrook, would you like to comment?

Dr. Gardner Middlebrook: I would like to ask Dr. Parker whether he believes there is any evidence that the fibrin that surrounds the bacteria in the endocardial lesions acts as a barrier and so prevents antibiotics from reaching the bacterial cells?

Dr. Parker: There are references in the literature referring to the possibility that the large amounts of fibrous tissue enmeshing bacteria in vegetations may prevent penicillin from reaching the organisms. In 1952, Dr. Hunter,[8] while working here, studied the effect of penicillin and streptomycin on bacteria in the center of a blood clot and found that antibiotics reached the organisms more slowly under the conditions of the experiment. Bacteria which were killed in liquid media in six days by penicillin and streptomycin remained viable in large numbers in the clots up to four weeks. Dr. Hunter's observations were made *in vitro*, of course, rather than *in vivo*.

Dr. Sherry: Dr. Harford, will you review the current status of therapy in bacterial endocarditis?

Dr. Carl G. Harford: Before I discuss treatment, I should like to say, in regard to Dr. Middlebrook's question, that observations by others confirm Dr. Hunter's findings that the fibrin barrier about vegetations does hinder penetration by penicillin and consequently interferes with its bactericidal effect.

Turning now to the problem of therapy, one of the first questions which arises when a patient is considered possibly to have bacterial endocarditis is when to start therapy. The answer is, of course, that therapy should be begun as soon as possible because of the potential dangers to the patient of allowing the disease to go untreated—emboli and progressive valvular damage, especially when the aortic valve is involved—are grave complications. It is our feeling that when the diagnosis is reasonably clean-cut on clinical grounds, multiple blood cultures should be obtained—each blood sample drawn and cultured separately—in order to confirm subsequently the diagnosis, after which treatment should be instituted. The rationale of this approach here and in many other clinics is that if the multiple initial cultures are not positive, it is not likely that cultures obtained on subsequent hospital days will be. Certainly the incidence of positive cultures subsequent to the first hospital day is not great enough to warrant a delay in therapy when the clinical evidence in favor of the diagnosis is substantial. In addition, there are a number of cases of bacterial endocarditis in which positive blood cultures cannot be obtained—the so-called bacteria-free stage of Libman.[9]

Summarizing then this aspect of the subject I would say that when the diagnosis seems clear-cut on clinical grounds, therapy should only be delayed long enough to permit the drawing of multiple blood cultures, preferably five or more. Needless to say, when the clinical evidence is meager, a more prolonged attempt to demonstrate bacteremia and confirm the diagnosis is in order.

Let us consider now the duration of treatment. In the first place, it is extremely important to obtain repeated blood cultures after the start of therapy; if positive cultures occur and remain positive during treatment, one must obviously conclude that the drug or drugs being used are not effective. If the blood cultures become negative after the institution of bactericidal antibiotics (e.g., pencillin, streptomycin) one can reasonably assume that the drugs are achieving the desired end. When bacteriostatic drugs (e.g., the tetracycline group) are employed the fact that the blood cultures become negative does not constitute clear-cut evidence that the infection is being handled satisfactorily for, frequently, under these conditions positive cultures recur when the drug is stopped.

The continuation of fever and the occurrence of embolic phenomena are not necessarily useful in deciding whether the therapeutic regimen is successful. Both may be noted for several weeks in patients whose infecting organisms are actually susceptible and in whom therapy ultimately proves successful. Indeed, we have seen some instances in which patients have continued to have sterile emboli for a matter of weeks after conclusion of treatment, which subsequent long observation proved to have been definitive.

It is difficult to be arbitrary regarding the optimum period of therapy in those patients whose blood cultures become negative soon after treatment is begun. In general, if the organism is sensitive to the antibiotic(s) employed, and if the patient's disease has apparently not been present for a long period prior to the start of therapy, it seems reasonable to shorten the duration of treatment from the six to eight weeks formerly recommended. We have had good results in patients whose course of therapy has been decreased to three to four weeks, and, of course, Dr. Hunter and others have shown that a course ten to fourteen days in length often suffices. It is, in my opinion, probably more desirable to give the patient the benefit of treatment for a somewhat longer period than ten to fourteen days.

In this regard it should be remembered that when the six to eight week therapeutic regimen was recommended, penicillin was short in supply and the patients treated in the original series published here[10] and elsewhere[11] received small amounts of drugs in comparison with what is used now. Furthermore, penicillin was given alone rather than with streptomycin, which was later shown to influence favorably the outcome. For example, in our original series here we gave 40,000 units of penicillin every two hours, so that the daily total was a mere 240,000 units of penicillin a day. In contrast, the patient under discussion at this conference is receiving 16,000,000 units of penicillin daily plus streptomycin.

After a period of therapy has been decided upon, one need not fear stopping the drugs at the end of the course, for experience suggests that even if a clinical and bacteriologic relapse occurs the organism usually is found to be just as sensitive as it was originally. In other words, acquired resistance on the part of streptococci is uncommon and more intensive retreatment is, therefore, often successful. Another argument in favor of shorter term therapy has to do with the treatment of patients in whom the diagnosis is suspected but not confirmed by blood cultures. One is less hesitant to commit a patient to a three or four week course than to one twice as long. I would like to reiterate that in the treatment of streptococcus viridans endocarditis the best results have been obtained with penicillin and streptomycin; in some instances bacitracin has been effective. Favorable results are much less often obtained with the broad spectrum drugs such as the tetracyclines, chloramphenicol and erythromycin.

The selection of proper dosage in a given case again cannot be stated with authority. We have already mentioned the problem of penetration of the vegetations by the antibiotics. There is also evidence that the number of bacteria present in the vegetation is an important consideration. Finally, the binding of penicillin by serum proteins plays a role. One can say that often relatively small doses—certainly a good bit smaller than are used at present—are curative. On the other hand, there is not too much point in trying to select the smallest possible effective dose, even if *in vitro* studies suggest that the organism is extremely sensitive. In other words, it is probably better to err on the side of giving too much rather than too little penicillin.

Although in the present case the laboratory studies suggested that the organism was moderately resistant to penicillin and streptomycin, I have reviewed the data and suspect that the *in vitro* results were not entirely reliable, probably due to the fact that contaminants interfered with the antibiotic sensitivity test. The favorable clinical response suggests to me that the organism is actually relatively sensitive.

Dr. Sherry: From the practical point of view, Dr. Harford, will you tell us the technic employed in this hospital for blood cultures?

Dr. Harford: It is our practice to obtain 23 ml. of venous blood under aseptic technic. Of this amount, 10 ml. are added to nutrient broth, another 10 ml. to thioglycollate broth, and 2 ml. and 1 ml. are used respectively for the purpose of pouring blood agar plates. The thioglycollate broth is used because it provides suitable conditions for the growth of anaerobic bacteria.

Dr. Sherry: What is the present case mortality rate in patients whose disease is caused by sensitive organisms and in whom proper therapy is given?

Dr. Harford: Probably under those circumstances less than 10 per cent of the patients die.

Dr. Sherry: Thank you, Dr. Harford. We are also pleased to have with us today Dr. Cutting B. Favour, formerly Head of the Infectious Disease Division of the Peter Bent Brigham Hospital, in Boston, and now associated with the Palo Alto Foundation and the Stanford University Medical School. Dr. Favour has contributed significantly[12] to our knowledge of the subject under discussion today and I would like to have him comment if he will.

Dr. Favour: May I say that it is a pleasure to visit this Medical Center and to be asked to participate in these Rounds. This case points up the importance of adequate antibiotic prophylaxis, at the time of dental extraction, in patients who have rheumatic or congenital heart disease. It has been well known for many years that about 25 per cent of such patients who develop bacterial endocarditis give a history of dental extraction within a period of eight weeks or so prior to the onset of symptoms of infection.[9] Since the availability of antimicrobial agents this problem has been much more effectively handled. Unfortunately, however, many patients with congenital and rheumatic heart disease are not told of the importance of prophylaxis by their physicians and it is equally unfortunate that dentists often do not question patients regarding the presence of cardiac damage before they extract diseased teeth. Although, as Drs. Glaser, Harford and their colleagues showed some years ago,[13] transient bacteremia after dental extraction cannot always be prevented by the use of penicillin, it can be significantly reduced. Further, the intensity of bacteria when it occurs is lessened. As they postulated, it is probable that the continuation of prophylactic therapy for forty-eight hours after extraction serves to eradicate bacteria which may become implanted on the valves before a true vegetation can form. I agree also with their recommendation that in the presence of severe gum infection treatment for at least twenty-four hours before extraction is in order.

For prophylactic purposes, it is probably wise to give 1,200,000 units of penicillin one hour prior to operation, and to repeat the same dose twenty-fours and forty-eight hours after extraction. The use of a preparation which combines crystalline and procaine penicillin is preferable to one containing procaine penicillin alone.

Dr. Sherry: Thank you very much, Dr. Favour. I believe this discussion has been valuable to all of us in bringing to our attention a number of important aspects of the problems related to the pathogenesis, diagnosis and management of subacute bacterial endocarditis.

Editor's Note: The patient was given penicillin and streptomycin for four weeks according to the dosage and schedule given in the discussion. All blood cultures, including those taken after treatment was stopped, have been negative; and the patient feels well. He was discharged on March 11, 1956 and will be followed carefully in the ensuing months.

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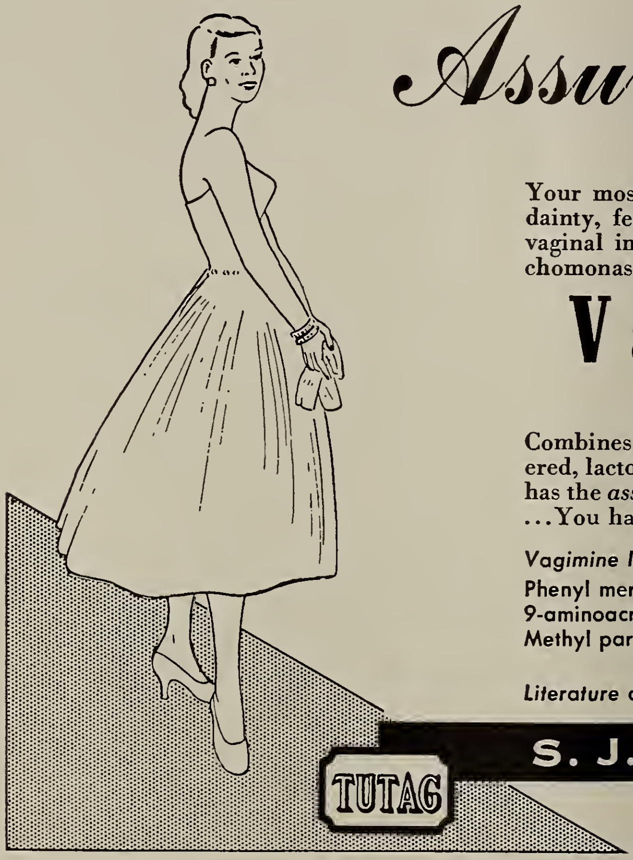

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Special Article

Can Missouri Schools Continue the Teaching Of Human Anatomy Effectively?

M. D. OVERHOLSER, M.D., *Columbia;* W. F. ALEXANDER, Ph. D., *St. Louis*
AND MILDRED TROTTER, Ph. D., *St. Louis*

THE NUMBER of cadavers received annually by Missouri schools for teaching and research, while fluctuating, shows a decline (fig. 1) over the years that at present must be regarded as a serious threat to the continuance of proper courses in human anatomy.*

In recognition of the necessity of human bodies for the teaching and investigation of anatomy, laws have been enacted in most states that make unclaimed bodies available to medical, dental, osteopathic and chiropractic schools for educational purposes. Most states, including Missouri, have laws prohibiting the transportation of these bodies across the state line. The satisfactory operation of these laws depends on several variable factors. These include the elected and appointive personnel charged with the care and the disposal of unclaimed bodies and the activities of religious and charitable organizations providing burial of bodies for which personal funds were not available. Some bodies for which burial is provided in this manner would otherwise be consigned to these schools for the teaching of anatomy.

THE MISSOURI STATE ANATOMICAL BOARD

The laws of the State of Missouri pertaining to the disposition of unclaimed bodies were first enacted in 1887, and have since been revised several times by legislation at the behest of teachers of anatomy in Missouri schools in order to make them more liberal and humanitarian. These laws are administered by the Missouri State Anatomical Board. As legally constituted, this Board consists of the directors of departments of anatomy, professors and associate professors of anatomy at the educational institutions in the state which are now or may hereafter become incorporated, and in which human anatomy is taught or investigated. This Board is authorized to have exclusive control of the disposition and delivery to the educational institutions of bodies that legally come under its jurisdiction. The office of the secretary is located in Columbia.

As prescribed by Section 4 of the Anatomical Law, "Superintendents or wardens of penitentiaries, houses of correction and bridewells, hospitals, insane asylums and poor houses, and coroners, sheriffs, jailers, city and county undertakers, and all other state, county, town or city officers having the custody of the body of any deceased person required to be buried at public expense, shall be and hereby are required immediately to notify the secretary of the Board, or the person duly designated by the Board or by its secretary to receive such notice, whenever any such body or bodies come into his or their custody, charge or control, and shall, without fee or reward, deliver, within a period not to exceed thirty-six (36) hours after death, except in cases within the jurisdiction of a coroner where retention for a longer time may be necessary, such body or bodies into the custody of the Board and permit the Board or its agent or agents to take and remove all such bodies, or otherwise dispose of them: Provided that each educational institution receiving a body from the Board shall hold such body for at least thirty (30) days, during which time any relative or friend of any such deceased person or persons shall have the right to take and receive the dead body from the possession of any person in whose charge or custody it may be found, for the purpose of interment, upon paying the expense of such interment . . ."

As prescribed by Section 6 of the Anatomical Law, "Bodies required to be buried at public expense shall be under the exclusive custody and control of the Board. It is hereby declared unlawful for any person or persons to hold any autopsy on any dead human body subject to the provisions of this article without first having obtained the consent of the secretary of the Board or his accredited agent. The consent of any person for an autopsy on his or her body shall not in any way prevent or affect the application of this article."

LOCAL ANATOMICAL BOARDS

The constitution of the State Anatomical Board provides for the appointment by the state secretary, of a local secretary, in each of the areas where there are one or more educational institutions entitled to receive human bodies unclaimed for burial. The local secretary shall organize a local Anatomical Board which, acting under the

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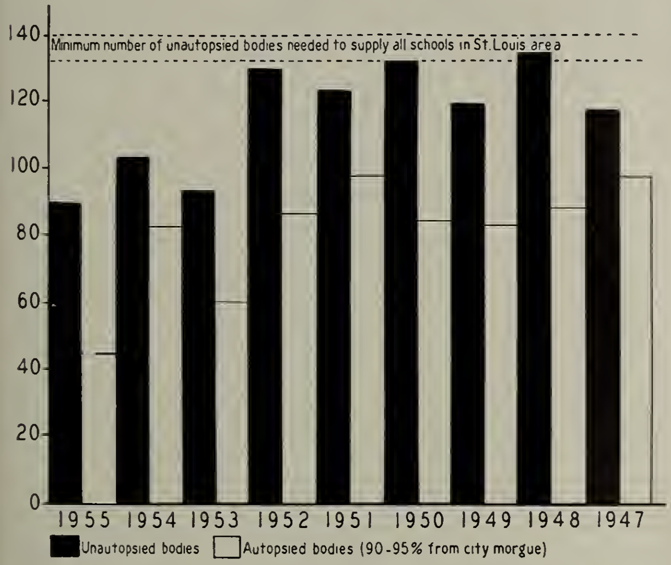
M. D. O., University of Missouri School of Medicine; W. F. A., St. Louis University School of Medicine; M. T., Washington University School of Medicine. All are members of the State Anatomical Board.

direction of the secretary of the State Anatomical Board, shall elect its own officers (president and vice president) and distribute the available bodies to the local institutions. The Local Anatomical Boards in St. Louis, Kansas City, Kirksville and Columbia, acting for the State Anatomical Board, receive, allot and distribute the bodies to the legally recognized local educational institutions. Because of practical considerations, particularly the cost of transportation of bodies from distant points, the Local Anatomical Board in St. Louis, receives and distributes all bodies that become available in St. Louis and adjacent portions of Missouri, but does not regularly receive bodies from distant points. The same, in general, holds true for the other three Local Anatomical Boards. For distribution to the educational institutions in the City of St. Louis, because of scarcity of material, it has been necessary at times, to transport some bodies from distant areas, including Kansas City. However, due to local needs, this source as well as others are no longer accessible to the Local Anatomical Board of St. Louis.



The number of unautopsied and autopsied bodies received and distributed by the St. Louis Local Anatomical Board for the years 1947 through 1955.

MANY AUTOPSIES ARE NOT NECESSARY

The performance of autopsies on some bodies is prescribed by law, namely, in cases of violent death or casualty. Most of the autopsies in this category, for which a fee is legally provided, are carried out under the direction of the coroner. In view of the large number of bodies released to the Anatomical Board after autopsy, it is quite evident that in many instances autopsy was not necessary to determine the cause of death. The importance of autopsy procedures following death due to certain diseases that require further investigation is fully recognized. The Anatomical Law is quite clear on this point, but some of the purely local regulations and customs under which autopsies are carried out are at variance with the State Anatomical Law and ignore it. Permission for autopsy of bodies (under the jurisdiction of the Anatomical Law) that fall within this category has always been granted by the Anatomical Board when permission was requested by the physician in charge. The number of requests for autopsies of bodies in this category is insignificant.

Bodies that have been subjected to autopsy can be used, within certain limits, for specialized teaching purposes, but their value for teaching to the beginning medical student, for example, is greatly reduced. The major portion of the diseases that afflict and kill are those of the thorax and abdomen. These are the regions routinely subjected to autopsy, thus the remains have little, if any, value for teaching purposes. A thorough legal investigation into the issues involved, i. e., the Anatomical Law and the laws governing the coroner's offices of the State, including that of the City of St. Louis would seem indicated. Modern trends and the necessity to safeguard the public seem to indicate a reform in the laws and clarification of the diametric conflict between them. This is particularly needed if the training of physicians and the maintenance of the high standards of the medical profession are to be upheld.**

SHOULD NOT THE MEDICAL SCHOOLS HAVE THESE BODIES?

Some bodies that would legally come under the jurisdiction of the Anatomical Board are buried at the expense of religious and charitable organizations. The praiseworthy motives that inspire this practice are not questioned but it is believed that the needs for teaching and research embody an even higher motive for the disposition of unclaimed bodies. An appeal is made, therefore, to those who can exert an influence in the disposition of an unclaimed body to consider the value of its scientific use in teaching and investigation. The contribution this dead body can offer for the welfare of the living is priceless.

During the recent years the Local Anatomical Board in St. Louis has received the bodies of certain persons that would not have come under the jurisdiction of the Board except for the expressed desire, before death, of the persons in question to have their bodies used for purposes of teaching and research. This expressed desire of individuals to have their bodies so utilized is laudible, and such expression should be encouraged.

YOUR LEGACY TO MEDICAL EDUCATION

In a few states, Alabama, California, Florida, Georgia, Indiana, Maine, Minnesota, New York and North Carolina, the legal provision enabling a person to will his or her body has recently been added to their statutes. Missouri has now joined the ranks of these progressive states. On January 1, 1956, the revision of the Probate Court Code became effective. In this revision, Section 261 reads as follows, "Any person of sound mind, eighteen years of age or older may by last will devise his real or personal property and may devise the whole or any part of his body to any college, university, licensed hospital or to the state anatomical board for use in the manner expressly provided by his will or otherwise." This specific provision to allow the willing of the body represents a definite forward movement for purposes of teaching and research.

It should be pointed out that the supply of bodies available for purposes of teaching and research varies with economic conditions. In the past, during periods of unemployment the number of bodies that could not be buried except at public expense has been greater than during good economic periods. In view of the present social trend, it may be anticipated that the number of unclaimed bodies in the future will be further reduced due to the expansion of social security, old age pensions and death benefits by the federal government. This trend is all the more reason for the necessity of obtaining willed bodies for the teaching and research carried out by the educational institutions of the State of Missouri.

OTHER UNMET NEEDS

The teaching of human anatomy and investigation of human structure, neverthless, will go on and human bodies will be legally provided and decently used. The enrollment of students in medical and dental schools will probably increase, including increase in students of physical therapy and occupational therapy. The enrollment of students in schools of nursing will also be augmented. These increases will require additional human bodies for purposes of teaching. It is, therefore, urgent that everyone whose work is related to the teaching of anatomy, not only anatomists, but also, medical and biological scientists, hospital administrators and nurses should stress the great need and importance of human dissection in medical, dental and nursing education.

THE ROLE OF MISSOURI PHYSICIANS

Physicians have a responsibility in the preservation of the high standards of the practice of their profession in the state. In addition, they have an equally responsible role in the preservation of the high standards of professional educations. Only through persistent, vigorous and intelligent action can this responsibility be met.

Many physicians have children who wish to join their parent's profession. The anatomic education that the children may hope for will fall far short of that made available to their parents unless a vigorous, united action is made for the procurement of human bodies for the Anatomical Board. Already, postgraduate education in medicine has had to be curtailed because of lack of cadavers. The next group to lose this privilege will be the beginning students in medical and allied fields.

It is through widespread contacts made with patients, friends and relatives by physicians that the need can be made known and measures taken to maintain a supply of human cadavers for teaching purposes and research. Encouragement should be given to an individual to will his body to the State Anatomical Board or to an educational institution of his choice (where anatomy is taught).

SUMMARY

1. The Missouri State Anatomical Law does not provide the necessary number of human bodies for the teaching of anatomy in the educational institutions within the state. Bodies may not be imported from other states.
2. Some provisions of the Anatomical Law are ignored by some elected state and local officials.
3. Autopsies are being performed on bodies that come under the jurisdiction of the Anatomical Law without permission of the Secretary of the Anatomical Board as the law requires.
4. The present social and economic trends have reduced, and will reduce still further, the number of unclaimed bodies which presently constitute the chief source for teaching and research.
5. Legal provision for the willing of one's body to an educational institution or to the Anatomical Board has been enacted. Through the medium of this legislation the physicians of the state can by their influence meet this need in education.

*Ever since the inception of the study of human anatomy, dissection of the human body has been regarded as essential; knowledge of man's anatomy is basic to all further studies dealing with the diagnosis, care and treatment of human ills. This method of study, which began with Vesalius, continues at the present and must continue into the future. Teaching aids, such as charts, lantern slides, models, may be useful, but there can be no substitute for the detailed separation and observation of the body parts by the student. The need of adequate human material for the teaching of anatomy emphasizes the importance of making available an ample supply of human bodies for dissection. It becomes apparent that both legal measures and social attitudes are necessary to fulfill this need.

**The Coroner of the City of St. Louis is cooperating with the Local Anatomical Board in trying to release as many unautopsied bodies as possible; however, he is hampered by the fee system, local politics, local customs and legal regulations.

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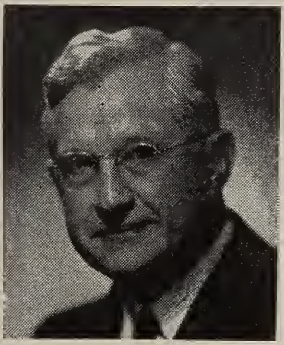
*TRADEMARK

President's Page

We have all heard the phrase "Let's make it a safe and sane Fourth of July." It was usually used in referring to fire crackers and other explosive items that children like to have on that day. However, this time, it applies to automobile accidents.

The Travelers Insurance Co. has published a booklet called "Fatal Fallacies." In 1955, there were 37,800 deaths and 2,158,000 injuries caused by automobile accidents. More than 80 per cent of all casualties occurred in accidents in which there was some driving violation.



The booklet states that safety is more than a slogan. It is an attitude of mind and a way of life. And as the road of all virtues is strewn with temptations, so is the path of safety. They are called "fatal fallacies." Following are a few of the deadliest:

Pitting speed of reflexes against the modern automobile super horse power.

Feeling free to "pour it on" on the straight away no matter how clear the day, how dry the road, how straight or wide the highway.

Reliance on built-in safety features to compensate for lack of care.

Driving while intoxicated or weary in the vain hope that the homing instinct will assure safe arrival.

Believing, with the supreme confidence born of experience, that rules of the road are meant for beginners.

These are just some of the fatal fallacies which caused grievous death and injury on the highways of America in 1955. Should we not reappraise our own driving ability in line with these fatal fallacies? If a safe and sane Fourth has any meaning, why not make the rule apply to our own driving 365 days a year?

Carl F. Vohs M.D.

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Each tablet contains:

Reserpine........0.15 mg. *for* hypothalamic *action*
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Indicated in

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EDITORIALS

Traffic Safety

In 1955, more than fifteen thousand individuals did not return home after the pleasures of the weekend. According to figures recently published by the Safety Service of The Travelers Insurance Companies of Hartford, Connecticut, 15,730 Americans were killed in weekend traffic accidents.

Of last year's traffic fatalities, more than one fifth occurred on Saturday.

The reasons for this record number of weekend highway fatalities lie in the motoring habits of the American public. Every highway in the nation has its Saturday share of that portion of America bound and determined to arrive at its weekend destination in time for dinner, even if the trip's last sixty miles must be covered in an hour flat. Too frequently, the strain and fatigue of distance driving are ignored in anticipation of ample relaxation at the journey's end.

Then, too, the highways continue to be filled with those drivers whose idea of relaxation is an extra drink or two "for the road."

Millions of dollars have been spent by federal, state and municipal authorities in an effort to provide better and safer roads. Additional millions are spent by insurance companies and other private organizations for programs of safety education.

Nevertheless, the weekends of 1955 saw more persons killed and injured on our highways than ever before. It was not the fault of the road systems; it was not the fault of safety education campaigns. It was the fault of pleasure bent individuals striving to go too far, too fast, for a weekend's enjoyment.

How to reduce this record total of killed and injured? What is desperately required is the immediate, unceasing cooperation of every American in possession of a driver's permit.

An aroused awareness of the weekend highway peril, plus continued realization of this danger is the only way to reduce the weekend fatality figures for 1956.

Medical Schools to Receive Funds

A $10,000,000 program of grants to the National Fund for Medical Education was announced just prior to Medical Education Week by H. Rowan Gaither, Jr., president of The Ford Foundation.

The appropriation is intended to assist the National Fund for Medical Education in its efforts to strengthen the financial support for medical schools throughout the United States, both public and private, and to develop new sources of such support.

Grants from the $10,000,000 appropriation will be paid to the National Fund on a matching scale in a program that could last up to ten years but might be accelerated to completion in five years, depending upon the rate at which the National Fund develops additional support for medical education. The maximum grant in any one year would be $2,000,000.

The sliding formula by which The Ford Foundation will match the National Fund's receipts is designed to give particular encouragement in the early years of the plan to increasing the contributions of existing donors and to attracting new donors.

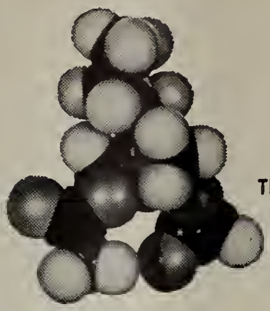
In 1955 the National Fund raised approximately $2,147,000 in unearmarked funds for distribution to the nation's medical schools. If the Fund's receipts are of equal magnitude in 1956, the Fund would receive under the Ford Foundation's formula grants totaling 70 per cent of this amount, or $1,503,486. All contributions to the National Fund in excess of the 1955 total would be matched dollar for dollar, subject to the annual maximum of $2,000,000.

In succeeding years the Fund's receipts would be matched on a diminishing scale, but all receipts over the preceding year's total would be matched dollar for dollar, up to the $2,000,000 annual total.

The National Fund for Medical Education was incorporated in 1949 to campaign for funds, principally among corporations, to support medical education. Its funds, given for current operating expenses, are distributed to each of the eighty-one accredited medical colleges of the United States. S. Sloan Colt, Chairman of the Bankers Trust Company, New York, is president of the National Fund for Medical Education.

The new appropriation is totally distinct from the $90,000,000 (endowment) appropriation announced by the Ford Foundation's board of trustees in December, 1955 to help privately supported medical schools strengthen their instruction. Allocations under this grant are to be determined by the Trustees after consultation with an advisory group soon to be formed, and will be paid directly to the schools.

Foundation grants will be distributed to the National Fund at the close of each calendar year, starting with 1956.



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SUPPLIED: 400 mg. scored tablets. Usual dose: 1 or 2 tablets t.i.d.

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Missouri Medical Meetings

Annual Meeting Missouri Academy of General Practice, Governor Hotel, Jefferson City, Oct. 24, 25, 1956.

Missouri State Medical Association Annual Session, Kansas City, March 31, April 1, 2, 3, 1957.

St. Louis Pediatric Society—second Thursday of each month, September through May at Medart's Restaurant, 8:00 p.m.

Component Society Meeting Dates

Audrain County Medical Society—second Thursday of each month.

Barton-Dade County Medical Society—third Wednesday of each month.

Benton County Medical Society—meets only on call.

Boone County Medical Society—first Tuesday of each month.

Buchanan County Medical Socitey—first Wednesday of each month.

Butler-Ripley-Wayne County Medical Society—first Wednesday of each month.

Callaway County Medical Society—third Thursday of each month.

Cape Girardeau County Medical Society—first Monday of each month.

Chariton-Macon-Monroe-Randolph County Medical Society—second Thursday of each month September through May.

Clay County Medical Society—last Tuesday of each month.

Clinton County Medical Society—meets only on call.

Cole County Medical Society—third Tuesday of each month.

Cooper County Medical Society—first Monday after the 15th of each month.

Dallas-Hickory-Polk County Medical Society—first Wednesday of each month.

Dunklin County Medical Society—third Tuesday of each month.

Franklin-Gasconade-Warren County Medical Society—last Tuesday of each month at the St. Francis Hospital, Washington, at 12:30 p.m.

Grand River Medical Society (Caldwell-Carroll-Livingston, Grundy-Daviess, Harrison, Linn, Mercer, DeKalb)—second Thursday of each month.

Greene County Medical Society—fourth Friday of each month.

Henry County Medical Society—meets only on call.

Holt County Medical Society—meets only on call.

Howard County Medical Society—meets only on call.

Jackson County Medical Society—fourth Tuesday of each month execpt June, July and August, at auditorium of General Hospital No. 1.

Jasper County Medical Society—second Tuesday of each month, September through May.

Jefferson County Medical Society—meets only on call.

Johnson County Medical Society—meets only on call.

Laclede County Medical Society—second Monday of each month at 6:00 p.m., at the Louise Wallace Hospital, Lebanon.

Lafayette-Ray County Medical Society—second Tuesday of each month at 7:30 p.m., at the Victory Cafe, Lexington.

Lewis-Clark Scotland County Medical Society—meets only on call.

Lincoln-St. Charles County Medical Society—third Thursday of each month.

Marion-Ralls-Shelby County Medical Society—fourth Tuesday of each month. 7:30 p.m.

Miller County Medical Society—meets only on call.

Mineral Area County Medical Society (St. Francois-Iron-Madison-Washington-Reynolds-Ste. Genevieve)—fourth Thursday of each month.

Moniteau County Medical Society—second Thursday of each month.

Newton County Medical Society—meets only on call.

Nodaway-Atchison-Gentry-Worth County Medical Society—first Monday in February, April, October and December.

North Central Counties Medical Society (Adair-Schuyler-Knox-Sullivan-Putnam)—meets only on call.

Ozarks Medical Society (Barry-Lawrence-Stone-Christian-Taney)—second Tuesday of each month September through June.

Pemiscot County Medical Society—third Thursday of each month.

Perry County Medical Society—second Thursday of each month.

Pettis County Medical Society—third Monday each month September through May.

Phelps-Crawford-Dent-Pulaski-Maries County Medical Society—fourth Thursday of each month.

Pike County Medical Society—third Tuesday of each month.

Platte County Medical Society—meets only on call.

St. Louis County Medical Society—second and fourth Wednesday of each month.

St. Louis Medical Society—first, third and fifth Tuesday of each month October through May.

Semo County Medical Society (Stoddard, New Madrid, Mississippi, Scott)—third Wednesday of each month September through May.

South Central Counties Medical Society (Howell-Oregon-Texas-Wright-Douglas-Ozark)—fourth Wednesday of each month.

Vernon-Cedar County Medical Society—meets only on call.

Webster County Medical Society—meets only on call.

West Central Missouri Society—second Thursday of each month.

Musings of the Field Secretary

In addition to their sponsored series of Public Forums on important health problems this spring, the Pettis County Medical Society gave the third Annual Sedalia Home Show a boost by presenting an effective exhibit on "Home Accidents." The Home Show was held April 24, 25, 26 at the Liberty Park Auditorium in Sedalia under the sponsorship of the local Junior Chamber of Commerce.

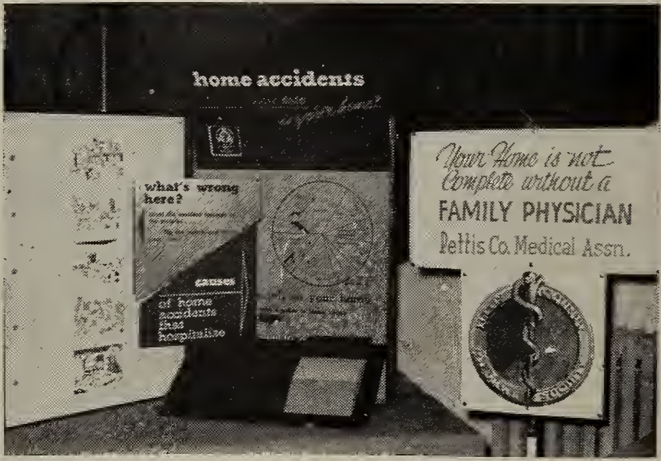
The Perry County Medical Society has recently worked out arrangements for presenting a number of health education programs over radio station KSGM at Ste. Genevieve, Missouri. Some of these will be live programs using members of the medical society, while others will utilize transcriptions secured from the A.M.A. Bureau of Health Education.

Possibly there are many other local radio stations over the state, and particularly outside metropolitan areas, which would be quite receptive to similar cooperative endeavors if approached by representatives of the local medical society.

One hundred people attended the Spring Conference of the Missouri Health Council at the Missouri Hotel, Jefferson City, Monday, April 23. The program was built around the subject "What Missouri Can Do for Its Handicapped."

Following brief introductory remarks, conference members were divided into seven discussion groups with each group receiving an assigned question to explore. One and one half hours were devoted to the group discussions. After lunch a reporter from each group gave a short résumé of his or her group's deliberations and conclusions. The various questions ex-

(Continued on page 490)


home accidents
what's wrong here?
causes of home accidents that hospitalize
Your Home is not Complete without a
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Pettis Co. Medical Assn.

En Garde!

OVER the long centuries of time, men of medicine have been on guard for the health of their fellow men . . . a guardianship to which modern medicine brings new breadth and scope.

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Through research and education have come new methods and techniques to guard people's health. Through Doctors' foresight have come plans to guard patients' financial security . . . **Blue Cross** and **Blue Shield.**

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SAINT LOUIS
KANSAS CITY

News

New chief of staff of the St. Francis Hospital, Maryville, is **H. C. Bauman**, M.D., Maryville, who addressed an annual dinner meeting at the hospital held early in April.

The American Social Hygiene Association, at its 46th annual meeting, named **Jules H. Kopp**, M.D., St. Louis, an honorary life member in recognition of his nearly twenty years of volunteer service.

The Springfield Chamber of Commerce elected **Durward G. Hall**, M.D., Springfield, president for a second term.

Among panelists on a program over KOMU-TV, Columbia, on "How Can We Reduce the Cancer Toll?" were **A. M. Evans**, M.D., Columbia; **Everett D. Sugarbaker**, M.D., Jefferson City, and **Terry E. Lilly, Jr.**, M.D., Kansas City.

The Kentucky Academy of General Practice had as guest speaker on April 18 at Louisville, **Oscar P. Hampton, Jr.**, M.D., St. Louis, who spoke on "The Management of Mass Casualties."

At the fifth anniversary celebration of the Perry County Memorial Hospital at Perryville, one of the guest speakers was **Frank R. Bradley**, M.D., St. Louis.

At a refresher course of the Texas Medical Association, held in Galveston, one of the speakers was **Rex L. Diveley**, M.D., Kansas City.

"A Résumé of Heart Surgery" was discussed by **John W. Polk**, M.D., Springfield, before a meeting of the Medical Secretaries and Assistants Society in Springfield in April. **William F. Johnson**, M.D., Springfield, gave the welcoming address for the meeting.

Moderator for the May radio program of the Buchanan County Medical Society was **Paul A. Knepper**, M.D., and panelists were **Paul M. Beck**, M.D., **C. G. Harner**, M.D., **Judson M. Hughes**, M.D., and **Richard L. Maginn**, M.D. The subject was "First Aid."

"Social and Emotional Implications in the Treatment of Surgical Patients" was discussed by **John W. Cashman**, M.D., **Frank H. Hodgson**, M.D., and **Richard H. Kiene**, M.D., Kansas City, at a Medical Social Workers meeting in Kansas Ctiy early in April.

Among speakers at the Midwest Conference of X-Ray Technicians in Kansas City in April was **Louis Scarpellino**, M.D., Kansas City.

A speaker before the Eastern Star at Springfield on April 17 was **M. D. Bonebrake**, M.D., Springfield.

The Vandalia branch of the American Association of University Women had as speakers at an April meeting **Roscoe L. Pullen**, M.D., and **William A. Sodeman**, M.D., Columbia.

"The Prevention of Wound Infection" was the subject of a presentation before the American Association of Railway Surgeons by **Oscar P. Hampton, Jr.**, M.D., St. Louis, at a meeting in Chicago on April 12.

Selected as one of twelve ophthalmologists to select recipients for residency fellowships in ophthalmology recently established by the Guild of Prescription Opticians of America is **Theodore E. Sanders**, M.D., St. Louis.

Citations were presented by the St. Louis Pediatrics Society as recognition of work in development of pediatric medicine to **Jean C. Cooke**, M.D., St. Louis; **Borden S. Veeder**, M.D., St. Louis, and **John Zahorsky**, M.D., Steelville.

The University of Missouri Alumni Association of Rolla had as its speaker on April 23 **Hugh E. Stephenson, Jr.**, M.D., Columbia.

DEATHS

Martin, James Hardy, M.D., Ironton, a graduate of the Beaumont Hospital Medical College, 1901; honor member of the Mineral Area Medical Society; aged 78; died March 19.

Dean, Leslie E., M.D., Maryville, a graduate of the Kentucky School of Medicine, 1898; honor member of the Nodaway-Atchison-Gentry-Worth County Medical Society; aged 80; died March 20.

Spivy, R. M., M.D., St. Louis, a graduate of Washington University School of Medicine, 1907; member of the St. Louis Medical Society; aged 75; died April 2.

Jones, Kneeland P., M.D., Kansas City, a graduate of Bellevue Hospital Medical College, New York, 1885; honor member of the Jackson County Medical Society; aged 95; died April 21.

Touhill, Neal J., M.D., Dexter, a graduate of St. Louis University School of Medicine, 1929; member of the Semo County Medical Society; aged 52; died April 10.

NEW MEMBERS

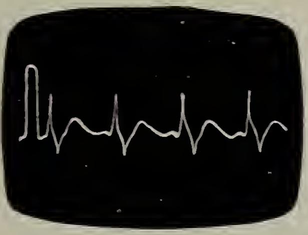
Aks, Daniel, M.D., 1309 E. 82nd St. Terrace, Kansas City. Jackson County Medical Society.

Atkinson, Thomas E., Jr., M.D., 221 Professional Building, Springfield. Greene County Medical Society.

Brown, James T., M.D., 1120 S. Weller, Springfield. Greene County Medical Society.

Polk, John W., M.D., 609 Cherry St., Springfield. Greene County Medical Society.

Lasker Award statuette



an acknowledgment

We are proud that our television series on the NBC network, "The March of Medicine", has been selected to receive the first Albert Lasker Award in the field of television and radio.

But we feel that those really being honored are you—the physicians and research scientists of America.

Your sense of responsibility to the public—and that of your hospitals, laboratories, and staffs—has made it possible for "The March of Medicine" to report the story of medical progress.

The Lasker Awards heretofore have been bestowed on many of the nation's outstanding medical scientists and journalists. As a member of the pharmaceutical industry, we are particularly grateful for the honor represented by this award.

We are also grateful for the support we have continually received from the American Medical Association, which has cooperated in this series from the very beginning.

Francis Boyer

Francis Boyer
President
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Councilor District News

SECOND COUNCILOR DISTRICT

W. F. FRANCKA, HANNIBAL, COUNCILOR

Chariton-Macon-Monroe-Randolph County Medical Society

Members of the Chariton-Macon-Monroe-Randolph County Medical Society held their monthly dinner meeting Thursday evening, April 12, at the Woodland Hospital.

Dr. Charles A. Brasher, Superintendent of the Missouri State Sanatorium, Mount Vernon, spoke to the group on "Modern Therapy of Tuberculosis."

Dr. Brasher prefaced his talk with a review of therapy from a historical standpoint on up to the advent of modern treatment of tuberculosis with antimicrobial drugs. The speaker indicated that surgery, anesthesia and blood have been important adjuncts in the remarkable decrease in the death rate due to tuberculosis.

Dr. Brasher illustrated his talk with slides demonstrating the near miracle accomplishments of treatment with antimicrobial drugs alone or in combination with surgery.

The following members were present: Drs. Dwight Anderson, Josephine D. Baker, W. D. Chute, C. C. Cohrs, J. Will Fleming, Thomas S. Fleming, Robert Hasson, C. C. Smith, Stanley R. Szymanski and Robert H. Young, Moberly; F. A. Barnett and G. M. Ragsdale, Paris; James E. Campbell, Donald E. Eggleston and Wallace Petty, Macon; F. L. Harms and G. W. Hawkins, Salisbury; G. C. Rice and D. D. Stuart, Brunswick; C. C. Weger, Keytesville, and P. V. Dreyer, Huntsville.

Guests present were: Dr. Oscar F. Guiterres, Wabash Employees' Hospital, Moberly; Dr. R. P. Price, Brunswick, and Dr. J. W. Gardner, Glasgow.

Robert H. Young, M.D., *Secretary*

FOURTH COUNCILOR DISTRICT

JOSEPH C. CREECH, TROY, COUNCILOR

Jefferson County Medical Society

Eighty people attended an evening public relations program sponsored by the Woman's Auxiliary of the Jefferson County Medical Society in the Public Health Center at Hillsboro on Tuesday evening, April 24. Mr. Oliver Field, Director, Bureau of Investigation, American Medical Association, Chicago, Illinois, gave the principal address.

Mr. Field had an attentive audience.

The doctors gather around Mr. Field at tea time.

Mr. Field, in an interesting way, discussed "Fads and Quackery in Medicine." His assortment of gadgets and bottles used to illustrate his talk was most impressive.

The audience was composed of members of the Jefferson County Medical Society, their wives and special invited guests.

The Auxiliary, each year, sponsors at least one public meeting with the theme of public relations stressed.

John F. Rutledge, M.D., *Secretary*

FIFTH COUNCILOR DISTRICT

J. W. ALLEE, COLUMBIA, COUNCILOR

Audrain County Medical Society

The Audrain County Medical Society held their regular monthly meeting on April 12 in the cafeteria of the Audrain County Hospital at 7:30 p.m.

The meeting was called to order by the President, Dr. Glen Kallenbach. The minutes and treasurer's report of the previous meeting were read and approved.

The membership of Dr. Ned Dewitt Rodes was transferred to the Boone County Medical Society.

It was decided to ask Dr. Bauer, Superintendent of State Hospital No. 1, Fulton, to address the Society in June.

Dr. Ernest S. Gantt introduced Dr. William R. Platt who conducted a C.P.C.

The following doctors were present: Drs. Leonard L. Davis, Thomas L. Dwyer, Ernest S. Gantt, Charles L. Garcia, Henry J. Ector, Benjamin N. Jolly, William H. Jolly, Glen P. Kallenbach, Harold K. Lankford, Harry F. O'Brien, Ed S. Wallace, W. W. Bland, W. K. McCall, William R. Platt, William J. Stewart, Charles M. Waggoner, and Mr. Keyton Nixon, Administrator of Audrain County Hospital.

As there was no further business, the meeting adjourned at 10::00 p.m.

Ed S. Wallace, M.D., *Secretary*

Postgraduate Course at Missouri University

The Fifth Postgraduate Session in the series of six for the season 1955-1956 sponsored by the Missouri Academy of General Practice and the University of Missouri Medical School was held in Columbia, Thursday night, April 26.

An interesting and informative program of two hours duration was presented by Dr. Clement E. Brooke, Instructor in Pediatrics, and Dr. Clarence D. Davis, Professor of Obstetrics and Gynecology, at the University of Missouri.

The meeting disbanded slowly.

Dr. Brooke discussed "Antibiotics in Children" and Dr. Davis spoke on "Management of Hypertensive Disorders in Pregnancy."

The last session in this current series of postgraduate programs will be presented at the University on May 17.

J. W. Allee, M.D., *Councilor*

EIGHTH COUNCILOR DISTRICT

B. E. DETAR. JOPLIN, COUNCILOR

Greene County Medical Society

Seventy-five physicians attended the First Annual Ozark Empire Cancer Conference held at the Kentwood Arms Hotel, Springfield, Wednesday afternoon and evening, April 25.

This Conference was sponsored by the Greene County Medical Society in cooperation with the Missouri Division of the Missouri Cancer Society. The program was of unusual interest and featured four outstanding nationally known speakers.

The afternoon program featured the following discussions: "Carcinoma of the Uterus," by John A. Wall, M.D., Associate Professor of Obstetrics and Gynecology, Baylor University College of Medicine; "Carcinoma of the Thyroid," by Robert C. Horn, Jr., M.D., Pathologist and Director of Laboratories, Henry Ford

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Speakers and presiding officers take time for a picture.

Dr. del Regato was one of the speakers.

The conference drew a good audience.

Hospital, Detroit, Michigan; "Carcinoma of the Breast," by Herbert W. Meyer, M.D., Consultant in Cancer to the U. S. Naval Hospital, San Diego, California; "Carcinoma of the Lung," by Juan Angel del Regato, M.D., Director of the Penrose Cancer Hospital, Colorado Springs, Colorado.

Following a social hour and conference dinner in the evening, a round table discussion was held with the afternoon speakers answering questions submitted.

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NINTH COUNCILOR DISTRICT

J. H. SUMMERS, LEBANON, COUNCILOR

Mid-Missouri Medical Society

A dinner meeting of the Mid-Missouri Medical Society and the doctors' wives was held Thursday night, April 26, at the Yellow Jacket Cafe in Lebanon.

An interesting scientific program was presented by Joseph S. Summers, Jr., M.D., radiologist, Jefferson City. Dr. Summers gave an illustrated lecture on "X-rays—Monochromatic Two Dimensional Shadows."

M. K. Underwood, M.D., *Secretary*

TENTH COUNCILOR DISTRICT

BEN M. BULL, IRONTON, COUNCILOR

Mineral Area County Medical Society

A joint dinner meeting of the Mineral Area County Medical Society and the local Bar Society was held at the Ozark Village Cafe, Farmington, Thursday night, April 26.

An interesting discussion of medical legal problems composed the program for the evening.

A. G. Karraker, M.D., *Secretary*

MUSINGS

(Continued from page 482)

plored by the groups ranged from "Who are the handicapped—where are they—how are they located?" to "Whose responsibility is it to see that educational and job opportunities are available for the handicapped?"

A panel of informed persons representing the Missouri State Crippled Children's Service, Missouri Society for Crippled Children and Adults, United Cerebral Palsy of Missouri, Rehabilitation Division of the Missouri Department of Education, Special Education Division of the Missouri Department of Education and the Veterans Employment Service appeared on the afternoon program. Mr. Arthur Nebel, School of Social Work, University of Missouri, served as moderator of the panel, whose discussion was based upon the individual summary reports of the seven group reporters. Audience participation throughout the days program was much in evidence. A final summary of the conference was given by Dr. Loran G. Townsend, Dean, School of Education, University of Missouri.

Mr. Chester Starr, Jefferson City, Secretary of the Missouri Health Council, gave a brief report on the "Progress of the Health Council's Deliberations on the Recent Survey of Medical and Hospital Indigency in 27 Non-Metropolitan Missouri Counties."

AMERICAN COLLEGE OF PHYSICIANS ELECTS FELLOWS AND ASSOCIATES

The American College of Physicians, at its thirty-seventh annual session held in Los Angeles, April 16 to 20, elected Harry Statland, M.D., Kansas City, and John H. Killough, M.D., Columbia, fellows. At the same session, the College elected the following men as associates: Thomas M. Burns, M.D., Columbia; Alden M. Evans, M.D., Columbia, and Horace M. Perry, Jr., M.D., St. Louis.

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1. Cronheim, G., and Toekes, I. M.: Comparison of Sedative Properties of Single Alkaloids of Rauwolfia and Their Mixtures, Meet. Am. Soc. Pharmacol. & Exper. Therap., Iowa City, Iowa, Sept. 5, 1955.

2. Moyer, J. H.; Dennis, E., and Ford, R.: Drug Therapy (Rauwolfia) of Hypertension. II. A Comparative Study of Different Extracts of Rauwolfia When Each Is Used Alone (Orally) for Therapy of Ambulatory Patients with Hypertension, A.M.A. Arch. Int. Med. *96*:530 (Oct.) 1955.

Riker

LOS ANGELES

From the Medical Schools

WASHINGTON UNIVERSITY

Tumor Clinic

Dedication ceremonies for the new $130,000 tumor clinic in the Washington University-Barnes Hospital Medical Center were held recently at the medical center. Dr. Carl A. Moyer, Bixby professor of surgery and head of the department at the medical school, spoke on "The Role of the Tumor Clinic in the Medical School and in the Community." Also included on the program were Edwin S. Jones, president of the Barnard Hospital Board of Directors; Chancellor Ethan A. H. Shepley of Washington University; Dr. Oliver H. Lowry, dean of the medical school, and Dr. Frank R. Bradley, director of Barnes and affiliated hospitals. The Rev. George A. Bowles, chaplain at the medical center, gave the invocation. A tour of the clinic was conducted after the program.

The clinic is located on the fifth floor of the Barnard Free Skin and Cancer Hospital which became a part of the medical center in 1954. Dr. Charles L. Eckert, associate professor of surgery, is director of the new clinic, which formerly was located in the Mallinckrodt Institute of Radiology.

Medical Education Week

Several faculty members at Washington University School of Medicine participated in events during Medical Education Week celebrated throughout the country April 22 to 28. Dean Oliver H. Lowry discussed some of the functions and problems of medical education and medical schools on a radio show called "Wake Up St. Louis." Dr. Carl A. Moyer and Dr. Arthur Kornberg, professor of microbiology and head of the department, participated in a television program on the subject "Your Stake in Medical Education"; and Dr. Carl V. Moore, Busch professor of medicine and head of the department, was a participant in a general discussion to inform the public of the various aspects of medical education on a television show called "At Your Service." Dr. Samuel C. Bukantz, associate professor of clinical medicine, was the guest speaker at a tea held in observance of Medical Education Week sponsored by the Woman's Auxiliary to the St. Louis County Medical Society, the Woman's Club, St. Louis University School of Medicine and the Washington University Medical School Faculty Wives. Guests were organization presidents and other interested persons of this area.

Honored

Citations to two faculty members "for their contributions to the local community and in the development of pediatrics as a party of medicine" were awarded recently by the St. Louis Pediatrics Society. Recipients of the awards were Dr. Jean V. Cooke, professor emeritus and lecturer in pediatrics, and Dr. Borden S. Veeder, professor emeritus of clinical pediatrics and editor of the *Journal of Pediatrics.*

Senior Research Assembly

Thirteen senior medical students at Washington University participated in the annual senior research assembly held April 27 at the medical school. They presented scientific reports on research they had conducted during their medical school training. All research projects were conducted in addition to regular classwork. Participants were: John S. Meyer, J. H. Clark, Jr., LeRoy A. Pesch, Morton H. Field, Thomas F. Hornbein, Alan G. Johnson, Robert S. Spitzer, Eugene B. Feigelson, John W. Drake, William L. Brydon, Dale R. Dunnihoo, Harry A. Fozzard and Robert E. Kuhlman. John Drake, president of the senior class, presided at the assembly.

Lectures

The twenty-first annual Leo Loeb Lecture, sponsored by Mu Chapter of Phi Beta Pi medical fraternity of Washington University School of Medicine, was given recently by Dr. Charles A. Doan, professor of medicine and dean of the College of Medicine at Ohio State University. He discussed "The Reticuloendothelial Cells in Health and Disease." Dr. Loeb, in whose honor the annual lecture is given, is professor emeritus of pathology at Washington University School of Medicine. Dr. Loeb perhaps is best known for his work on cancer. He was the first to demonstrate that susceptibility to cancer frequently is inherited and to disprove a then widely held belief that it is infectious. Dr. Loeb, who retired in 1937, is 86. He continues his research activities at his home.

Sir Charles Symonds, London, discussed "The Value of Symptoms in Neurology: With Special Reference to Vertigo" at a meeting held recently at the medical center. The lecture was sponsored by the Beaumont-May Institute of Neurology at Washington University School of Medicine. An internationally known neurologist and teacher, Sir Charles is the senior neurologist at the Institute of Neurology and National Hospital, Queen Square, London. He was knighted for his contributions to the understanding of diseases of the nervous system.

Dr. Sidney F. Velick, associate professor of biochemistry at the medical school, recently lectured on "The Structure of Proteins" as part of a series entitled "The Frontiers of Science." The lecture was held on the main campus of Washington University. The series, sponsored by the St. Louis Public Schools Advisory Committee, is to acquaint high school science teachers with recent developments in advanced scientific fields. Dr. Velick discussed recent research which has determined the structures of two complex protein molecules and has synthesized a third.

Dr. E. V. Cowdry, director of the Wernse Laboratory of Cancer Research at Washington University School of Medicine, was the principal speaker at a banquet of the International Association for Dental Research during a four-day meeting of the association held recently in St. Louis.

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UNIVERSITY OF MISSOURI

New Appointments

Mr. Orville Richardson began a series of eight lectures in legal medicine on April 27, 1956. Mr. Richardson is an attorney practicing in St. Louis.

Dr. George J. Lytton was appointed a clinical associate in psychiatry, effective April 1, 1956. Dr. Lytton received his M.D. degree from the University of Nebraska. He is at present with the Psychiatric Receiving Center in Kansas City, Missouri.

Dr. Jack S. Sanders has been appointed assistant instructor in the Department of Medicine, effective July 1, 1956 and will also be a first year resident in the hospital. He received his M.D. degree from Harvard University. Dr. Sanders is an intern at the Kansas City General Hospital, Kansas City, Missouri, at present.

Dr. John T. Logue has been appointed assistant professor in the Department of Medicine, effective June 1, 1956. He received his M.D. degree from Duke University. Dr. Logue is currently at the Santa Cruz Medical Center, Santa Cruz, California.

Dr. John F. Lowney has been appointed instructor in the Department of Medicine effective July 1, 1956. He is presently an assistant physician at the Student Health Service of the University of Missouri. Dr. Lowney received his M.D. degree from St. Louis University.

Guest Lecturer

Dr. Jerry Skopek, assistant director of the Public Health Laboratories, St. Louis, visited the University of Missouri on April 17 and gave a seminar for all interested microbiologists and bichemists on "Some Studies on the Biological Synthesis of Cellulose by Acetobacter xylinum."

Postgraduate Activities

The fifth in a series of six sessions in Postgraduate Medical Education being presented at Joplin and Springfield, was held on March 21 and 22, with Dr. William A. Sodeman and Dr. Walter J. Burdette giving the lectures. Dr. Sodeman, professor of medicine, spoke on "Fever of Undetermined Origin" and "Questions and Answers on Problems of Heart Disease." Dr. Burdette, professor of surgery, lectured on "Treatment of Burns" and "Present Concepts in the Treatment of Gall Bladder Disease." At the Columbia session on Postgraduate Medical Education, on March 22, Dr. Thomas W. Burns, assistant professor of medicine, spoke on "The Use and Abuse of Thyroid and Anti-Thyroid Agents." Dr. Clarence D. Davis, professor of obstetrics and gynecology, lectured on "Office Gynecology."

Trips and Talks

On March 22 Dr. Robert L. Jackson, professor and chairman of the Department of Pediatrics, attended the yearly meeting of the Iowa-Nebraska Medical Assembly in Council Bluffs, Iowa, where lectures on "Diabetes Mellitus" were given. Dr. Jackson presented a lecture on the pediatric aspects of the disease. The National Catholic Education Association held a meeting at Kiel Auditorium in St. Louis on April 6 at which Dr. Jackson gave a lecture on "The Importance of Early Recognition, Diagnosis and Treatment of any Physical or Mental Defect in a Child." Dr. Jackson also delivered a lecture entitled, "Recent Advances in Nutrition of Children" at the meeting of the Tennessee State Pediatric Society at Le Bonheur Children's Hospital, Memphis, Tennessee, on April 9.

On March 29, Dr. Thomas D. Luckey, professor and chairman of Biochemistry participated in the 10th Annual Symposium on Cancer Research, at the M. D. Anderson Hospital of the University of Texas, speaking on "Metabolism in Germfree Animals."

Dr. M. D. Overholser, professor and chairman of the Department of Anatomy, along with Dr. E. W. Lowrance, professor of Anatomy, Dr. S. O. Landry, instructor in the department, and Mr. F. E. Doenges, assistant instructor, attended a meeting of the American Association of Anatomists in Milwaukee, Wisconsin, on April 4. The title of the demonstration which was presented by these individuals was "A Case of Human Cyclopia Associated with Rudimentary Pinnae, Absence of the Right Radius, Polydactyly and Syndactyly."

Dr. Frank B. Engley, Jr., professor and chairman of the Department of Microbiology, along with the staff members of the department, attended the meeting of the Missouri Valley Branch of the Society of American Bacteriologists at Kansas City, Missouri March 23, 24. On April 6, Dr. Engley attended an alumni "get-together" of the Missouri Alumni Association at Kansas City, Missouri. A visit to the United States Public Health Service Environmental Health Center in Cincinnati, Ohio, was made by Dr. Engley on April 7 through 10. Also, on April 16, Dr. Engley attended the executive meeting of the Eastern Missouri Branch of the Society of American Bacteriologists in St. Louis. Dr. Robert Keller, assistant professor of Microbiology, traveled to the United States Public Health Service Communicable Disease Center in Montgomery, Alabama, March 11 through 23 to attend a course in "Diagnostic Viral Laboratory Technics." Staff members of the Department of Microbiology attended a meeting of the Eastern Missouri Branch of the Society of American Bacteriologists held in Columbia on April 7. Dr. Keller presented a paper with Dr. Victor J. Cabelli, assistant professor in microbiology, and Charles T. Riley, a medical student, entitled "Persistence of Artificially Induced Microorganisms in Newborn Mice."

Dr. Joseph E. Flynn, professor and chairman of the Department of Pathology, addressed the County Medical Society in Columbia on March 5, giving "A Report of the 52nd Annual Congress on Medical Education and Licensure."

Dr. M. Pinson Neal, professor of pathology, attended the annual meeting of the Missouri State Medical Association in St. Louis April 8 through 11, presiding at the Tuesday noonday "round table discussion" of nine speakers. Dr. Neal was also reappointed a member of the Committee on Scientific and Postgraduate Work of the Missouri State Medical Association for a period of three years.

Dr. C. K. Leeper, assistant professor of pathology, addressed the Eastern Star meeting in Columbia on March 15 on the subject of early examination for detection and cure of cancer.

Dr. William A. Sodeman, professor and chairman of the Department of Medicine, was a delegate to the Missouri State Medical Association meeting in St. Louis, April 9 through 11. Dr. Sodeman gave a talk on the

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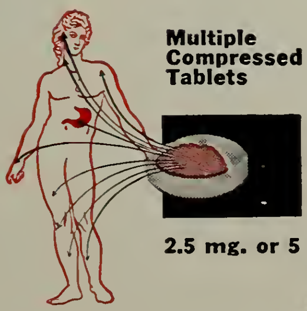

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References: 1. Boland, E. W., *J.A.M.A.* 160:613, February 25, 1956. 2. Margolis, H. M., *et al.* *J.A.M.A.* 158:454, June 11, 1955. 3. Bollet, A. J., *et al.* *J.A.M.A.* 158:459, June 11, 1955.

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University of Missouri School of Medicine to approximately thirty lay people at the Daniel Boone Hotel in Columbia on April 4. On April 3, Dr. Sodeman delivered a lecture on "Taking Care of Your Heart" to a meeting of the American Association of University Women at Vandalia, Missouri.

Dr. John H. Killough, associate professor of medicine, gave a lecture on "Acute Arthritis: Problems in Diagnosis and Management" to the Missouri State Medical Association in St. Louis on April 9. Dr. Killough also presented "A Kodachrome Trip Through Africa" to the Medical Wives in Columbia on April 3.

Dr. Clarence D. Davis, professor and chairman of the Department of Obstetrics and Gynecology, delivered a lecture to the St. Louis Gynecological Society on April 12 entitled, "Ovarian Function in Leiomyomata Uteri."

On March 22, Dr. Roscoe L. Pullen, Dean of the School of Medicine, spoke on "Hospital Program, University of Missouri, and the Medically Indigent" to the Missouri Hospital Association meeting at the University of Missouri. Dr. Pullen also delivered a lecture to the local branch of American Association of University Women in Vandalia at the Presbyterian Church on "Developments of the University of Missouri Medical Center." Dean Pullen is again serving as a member of the Health Committee of the Missouri Association for Social Welfare, the first meeting to be held on Saturday, May 5, at the Missouri Hotel in Jefferson City. Dean Pullen attended the University of Missouri Alumni meeting in Kansas City on April 6. This "get-together" was held at the Hotel Muehlebach with an attendance of some 800 Missouri alumni at the reception and banquet. On April 8 through 11, Dean Pullen attended the Annual Meeting of the Missouri State Medical Association in St. Louis at the Hotel Sheraton-Jefferson. While in St. Louis, on April 9, Dr. Pullen spoke at the Missouri Baptist Hospital at a dinner meeting on "Development at the University of Missouri Medical School and Hospital." At the annual meeting of the Missouri University Medical Alumni Association held at the Sheraton-Jefferson Hotel in St. Louis on April 11, Dean Pullen presented the Alumni Association Certificate of Merit to Dr. Arthur McComas, practicing physician in Sturgeon, Missouri. Dr. McComas is the first physician to be so honored by the Alumni Association and the Certificate reflects his many contributions to Missouri medicine, the developments of a four year medical school at the University of Missouri; his activities in founding and development of the Missouri State Crippled Children's Service, and other distinguished accomplishments.

Gifts and Grants

On March 16, the Committee on Scholarships and Awards awarded the Lederle Medical Student Research Fellowship to John E. Plumlee, graduate assistant in the Department of Anatomy. Mr. Plumlee will do a study of the sympathetic components of the ninth, tenth, eleventh, and twelfth cranial nerves.

A fellowship for medical student research has been given to the School by the Tobacco Industry Research Committee.

Six fellowships for medical student research (summer 1956) have been offered by the National Foundation for Infantile Paralysis in the School of Medicine; two in biological and physical sciences, two in public health and preventive medicine, and two in physical medicine and rehabilitation.

SAINT LOUIS UNIVERSITY

Reunion

The Saint Louis University School of Medicine Alumni Association will hold its annual reunion during the meeting of the American Medical Association in Chicago. A dinner dance has been scheduled in the Beverly Room of the Conrad Hilton Hotel Wednesday, June 13, at which Dr. Alphonse McMahon, associate professor of internal medicine and president of the alumni will preside. Plans are also being made for a 1931 class reunion to be held in conjunction with the A.M.A. meeting. Alumni may contact Dr. Otey S. Jones, president of that class, 3616 S. Broadway, St. Louis, 18, for details. A table is also being reserved at the dinner dance for members of the class of 1906.

Medical Education Week

A number of medical faculty participated in the first observance of Medical Education Week held April 22 to 28. Dr. James P. Murphy, assistant professor of clinical medicine and Missouri State Chairman of the week, moderated two TV shows, "At Your Service" telecast over KWK-TV April 24 and "Your Stake in Medical Education" telecast over KETC-TV. Dr. C. Rollins Hanlon, director of the Department of Surgery, and Dr. Alrick B. Hertzman, director of the Department of Physiology, appeared in the latter show. Dr. James W. Colbert, Jr., Dean, participated in the "Wake Up St. Louis" show over Radio Station KXOK. Dr. Vincent T. Houston, instructor in surgery, addressed the Rosati-Kain P.T.A. on April 25 and Dr. Kermit Christensen, professor of anatomy, addressed the Southside Lions Club on April 26.

Grant

The Internal Medicine Department of the School of Medicine has been awarded two grants totaling $14,900 by the National Advisory Arthritis and Metabolic Diseases Council of the United States Public Health Service, which will be used to aid its teaching and research programs in the field of arthritis and diabetes.

Meetings and Lectures

Medical faculty figured prominently in the fortieth annual meeting of the Federation of American Society for Experimental Biology held in Atlantic City April 16 to 20. In the session of the American Physiological Society, Dr. Alrick B. Hertzman, director of the Department of Physiology, served as chairman of the section on "Effects of Heat, Sweating" in which papers were delivered by representatives from eight universities and two military laboratories. Reports were made in that session by Dr. Iain D. Ferguson, associate professor of physiology, Dr. Hertzman and Dr. Alfred J. Rampone, instructor in Physiology. In other sections of the meeting participants included: Dr. Florent E. Franke, associate professor of physiology; Dr. Peter O. Bramante, instructor in physiology; Dr. X. J. Musacchia, associate professor of biology, and Rev. Basile J. Luyet, director of the Institute of Biophysics. In the session of Pharmacology and Experimental Therapeu-

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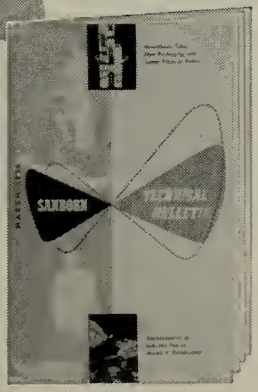

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tics participants included: Dr. Erwin E. Nelson, director of the Department of Pharmacology, and Dr. Leonard Procita, instructor in pharmacolgy. In the session of the American Society of Biological Chemists, Dr. Edward A. Doisy, director of the Department of Biochemistry, was chairman of the section of "Steroid Hormones—Metabolism" in which twelve papers were given by schools, hospitals and research institutes. Participants in the various sections of that meeting were Dr. Doisy, Dr. Edward A. Doisy, Jr., associate professor of internal medicine; Dr. William H. Elliott, associate professor of biochemistry; Dr. Sidney Thayer, professor of biochemistry; Dr. B. C. Bocklage, senior instructor in biochemistry; Dr. D. R. Strength, senior instructor in biochemistry, and Dr. Philip Katzman, professor of biochemistry.

The Anatomy Department was well represented at the sixty-ninth session of the American Association of Anatomists held at Marquette University School of Medicine April 4, 5 and 6. Those who delivered papers were: Dr. John E. Allison, assistant professor of anatomy; Dr. William F. Alexander, associate professor of anatomy; Dr. Kermit Christensen, associate professor of anatomy; Dr. Albert Kuntz, director of the department of anatomy; Dr. Calvin A. Richins, associate professor of anatomy, and Dr. John F. Schmedtje, assistant professor of anatomy. Dr. Christensen also reported on "Nerve Endings in Europe" before the Cajal Club, which held its 10th annual meeting in conjunction with the session.

Dr. John Zahorsky, professor emeritus of pediatrics, was awarded a citation for his unusual contribution to the St. Louis community and in the development of pediatrics as a part of medicine by the St. Louis Pediatrics Society at a meeting held April 9. The award was presented by Dr. Peter G. Danis, chairman of the Department of Pediatrics.

Dr. Otakar Machek, instructor in orthopedic surgery, was elected vice president of the St. Louis Rheumatism Society at a recent meeting held at the University Club. He also has been reelected chairman of the medical scientific committee of the Arthritis and Rheumatism Foundation of the Eastern Missouri Chapter.

Dr. James W. Colbert, Jr., addressed the Kentucky Hospital Association in Lexington, Kentucky, April 3. The title of his talk was "The Role of the Hospital in Medical Education."

Dr. Gideon S. Dodds, professor emeritus of anatomy, West Virginia, delivered the eighth annual Alphonse M. Schwitalla lecture sponsored by Alpha Omega Honor Medical Society April 12. Following the lecture new members were initiated into the society at a banquet at Firmin Desloge Hospital. Dr. James W. Colbert, Dean, was elected to membership by the society's Columbia University College of Physicians and Surgeons.

Dr. Wendell M. Stanley, Director of the University of California's Virus Laboratory delivered the eleventh annual Hanau W. Loeb lecture under the sponsorship of the Phi Delta Epsilon Medical Fraternity April 26.

Dr. Charles A. Hufnagel, associate professor of surgery, Georgetown Medical Center, delivered the second lecture honoring Dr. Albert Kuntz, director of the Department of Anatomy, Friday, April 27.

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1. Johnston, T. G., and Cazort, A. G.: J. Allergy 27:90, 1956. 2. Schwartz, E.: New York J. Med. 56:570, 1956. 3. Schiller, I. W., et al.: J. Allergy 27:96, 1956.

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Letters to Missouri Medicine

METHOD OF TOURNIQUET USE QUESTIONED

AMERICAN COLLEGE OF SURGEONS

April 19, 1956

Committee on Trauma

To the Editor:

In the April 1956 issue of Missouri Medicine, there appears an article entitled "Immediate Handling of Traffic Injuries" by Key and Ford. This article contains many sound teachings but the statements concerning the use of a tourniquet must be challenged. I refer to the following excerpt. "If the bleeding is from an extremity and the pressure dressing does not control it, a tourniquet should be improvised and applied. This should not be left on for more than an hour without loosening briefly (about 30 seconds) and reapplying, and the time when it is applied should be noted. When loosening the tourniquet digital pressure should be applied over the severed vessel."

The implication of this statement is in contrast with modern teaching concerning the use of a tourniquet. The overwhelming majority of hemorrhages from the extremities can and should be adequately controlled by a compression dressing. The tourniquet is reserved for the life endangering hemorrhage which is not adequately controlled by a compression dressing. Once the indication for a tourniquet has been definitely established and it has been applied, however, it preferably is not loosened until facilities for the surgical control of the hemorrhage are available or until the blood volume has been restored to a safe level by a blood transfusion, or, if blood is not available, by blood plasma or plasma expander transfusion. To loosen the tourniquet prematurely permits the loss of additional blood. The repeated loss of small quantities of blood in an almost bled-out individual may be lethal. Since a tourniquet is applied as a life-saving measure, it should be left in place as a life-saving measure. The "Manual on Soft Tissue Injuries" recently published by the Committee on Trauma of the American College of Surgeons recommends this up-to-date thinking on this problem as do the teaching manuals of the Medical Services of the Armed Forces.

Of course, casualties with a tourniquet applied to a limb should have a high priority for evacuation to a hospital and there have a high priority for treatment of shock and surgical intervention so that the tourniquet can be removed safely as soon as possible. It might be pointed out that experiences during World War II showed that a tourniquet could remain undisturbed for several hours without in itself producing ischemic gangrene. When the weather is extremely cold or the limb can otherwise be kept reasonably cool, it appears that the time can be extended to as much as five or six hours with subsequent survival of the limb if the arterial flow can be established by adequate surgery.

It appears particularly unfortunate that the recommendation made by Drs. Key and Ford to loosen the tourniquet for thirty seconds within each hour should be made at this time. Various groups are making efforts throughout this state to establish the principles of the management of mass casulties in the event of a civilian or atomic disaster. Certainly a basic teaching in this program is that once a tourniquet has been applied on a real indication, it should remain undisturbed until there is adequate restoration of blood volume and the patient has been taken to adequate surgical facilities. It appears reasonable that the loss of life from hemorrhage in wounds of the extremities will be much less if this doctrine is strictly adhered to than it will be if the recommendation in the article submitted by Drs. Key and Ford is followed.

Very truly yours,
Oscar P. Hampton, Jr., M.D., F. A. C. S.
Chief, Section VII, Regional Committees
on Trauma of the American College of
Surgeons.

MISSOURI PHYSICIANS THANKED

The National Foundation for Infantile Paralysis, inc.
FRANKLIN D. ROOSEVELT, FOUNDER
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NEW YORK 5, N. Y.

Basil O'Connor
PRESIDENT

April 25, 1956

Dr. Victor B. Buhler, President
Missouri State Medical Association
c/o E. Royse Bohrer
634 North Grand Boulevard
St. Louis 3, Missouri

Dear Doctor Buhler:

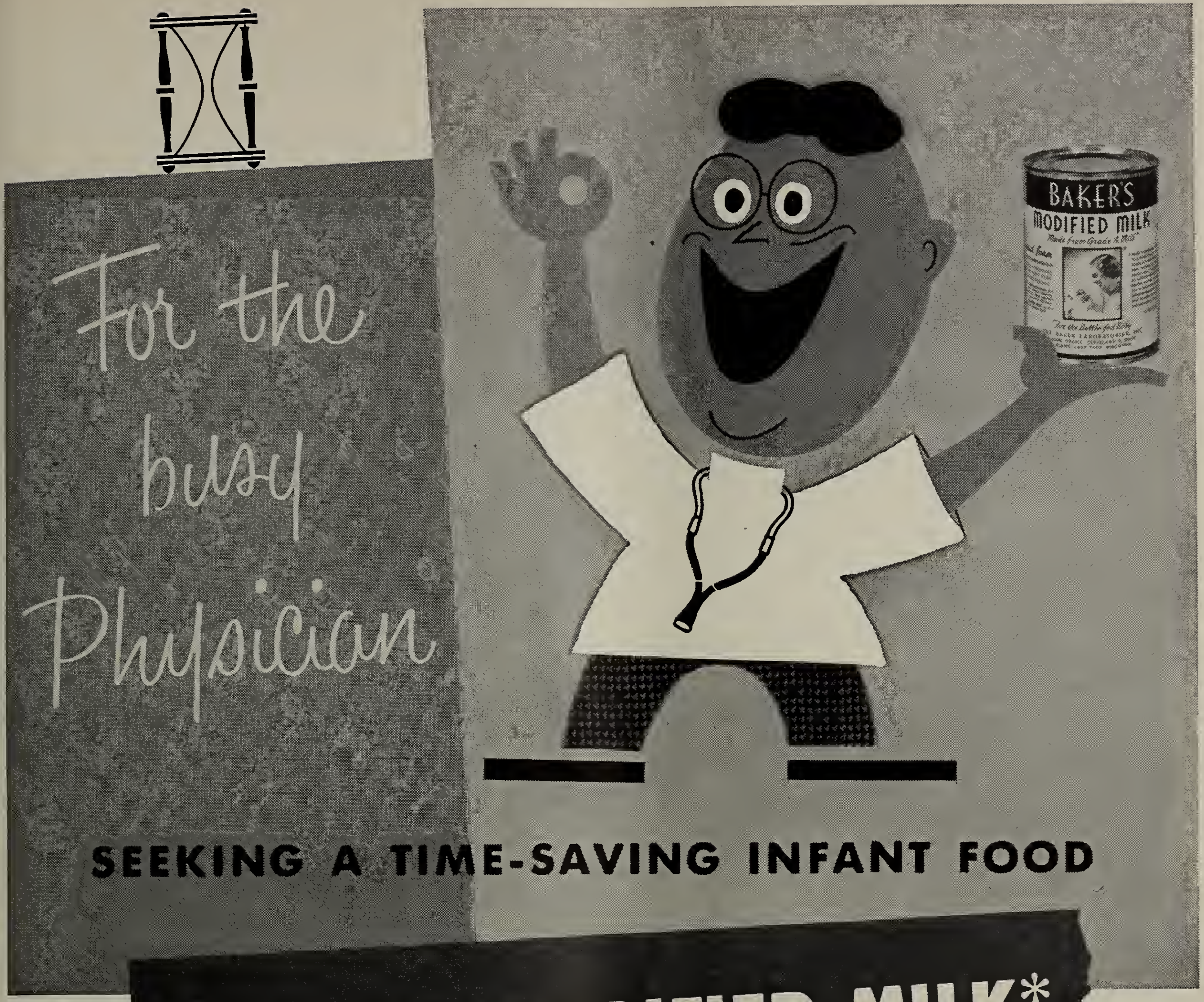
May I take this opportunity to express thanks from the National Foundation for Infantile Paralysis to the Missouri State Medical Association as a whole and to its individual members for their excellent cooperation with the state health department and the National Foundation in the successful conduct of the poliomyelitis vaccine demonstration program in Missouri during 1955.

The chief beneficiaries of this program, of course, were the Missouri school children, mainly in the first and second grades, who received one or more injections of vaccine supplied by the National Foundation during the year 1955. A total of 320,091 cc. of vaccine was supplied.

You may be interested to know that, thanks to your help, 154,987 Missouri children received at least one inoculation; 121,718 received two inoculations; and 5,043 received a third (booster) inoculation up to February, 1956.

Approximately 44 per cent of the Missouri children in the 5-9 age group, the age group most susceptible to paralytic poliomyelitis, thus obtained a high degree of protection against the disease in 1955 as a result of this program.

The cooperation of the Missouri State Medical Asso-



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ciation helped materially to account for this fine record.

While this is a formal expression of gratitude for your help, the real expression must come from the parents of those many children in Missouri who feel free from the threat of paralytic poliomyelitis in their families now that the 1956 poliomyelitis season is at hand.

Very cordially yours,
Hart E. Van Riper, M.D.
Medical Director

Missouri Hospitals Receive Ford Grants

MISSOURI HOSPITALS RECEIVE FORD GRANTS

The first mailing of more than 1,000 checks, totalling $37,748,800 to more than a thousand of the 3,500 hospitals in all the forty-eight states, the District of Columbia, the territories of Alaska and Hawaii, and the Commonwealth of Puerto Rico, that are participating in the Ford Foundation's $200,000,000 program to help improve and expand hospital services was made on April 7.

The checks are the first payments of $500 million in grants voted last December 12 by the Foundation's trustees. At that time, the trustees allocated $200 million to hospitals, $210 million to private colleges and universities to help raise teachers' salaries, and $90 million to medical schools to strengthen instruction.

Mr. H. Rowan Gaither, Jr., President of the Foundation, said he hoped the grants would help to focus attention on the urgent and continuing need for community support of the voluntary, nonprofit hospitals.

"The help which the Foundation is able to give meets only a fraction of the urgent needs of private hospitals," he said. "We hope that an important effect of the grants will be to encourage the citizens of every local community to give greater support to the hospitals which serve them. The strengthening of our hospitals contributes to the conservation of America's most valuable asset—our human resources."

The Foundation's hospital program, which was announced December 12, 1955, will give grants to the approximately 3,500 voluntary, nonprofit hospitals which are dependent upon private support. The program does not include governmental or proprietary institutions, or hospitals not listed by the American Hospital Association, or which were not in operation at the time the program was announced on December 12.

All hospitals believed to be eligible have been advised by the Foundation and have submitted formal requests in accordance with the Terms of the Grant. The requests are now being processed by the Foundation and, as they are approved, checks will be mailed for one half of the amount of the grant; the remaining half will be paid in March 1957. By the end of July of this year, all of the approximately 3,500 participating hospitals will have received payment of the first half of their grants.

The amount of each grant has been determined, in each case, on the basis of patient days of service and the number of births in each hospital. Each participating hospital will receive at least $10,000, and none will receive more than a maximum of $250,000.

Each hospital has been asked to determine for itself how grant funds can best be used to improve or extend its hospital service. The local hospital boards have shown a wide diversity of plans for the use of grant funds.

With the more than 1,000 checks ready to be mailed are Dr. Edwin L. Crosby, director of the American Hospital Association (left), and Dyke Brown, vice president of the Ford Foundation who holds additional checks that will go to Alaska, Hawaii and Puerto Rico.

Many will buy improved equipment, as well as duplicate equipment such as spare generators for emergency use in the event of disaster. Others plan to construct new buildings or additions; to build isotope laboratories and radio-therapy facilities; or to equip new departments such as those for children, geriatric care, mental health and tuberculosis treatment. Some hospitals will add new and specialized personnel, institute training programs, or add to their research laboratories.

All hospitals will use their grant funds to increase and improve the vital services which they are performing for their communities.

Hospitals in Missouri which received grants, and the one half as the initial payment, are: Bonne Terre Hospital, Bonne Terre, $16,600; Southeast Missouri Hospital, Cape Girardeau, $18,150; St. Elizabeth's Hospital, Hannibal, $30,100; Memorial Hospital, Harrisonville, $10,600; Independence Sanitarium and Hospital, Independence, $48,500; Freeman Hospital, Joplin, $26,700; St. John's Hospital, Joplin, $33,250; St. Joseph Hospital, Kansas City, $97,450; Trinity Lutheran Hospital, Kansas City, $45,200; St. Francis Hospital, Marceline, $6,900; Georgia Brown Blosser Home for Crippled Children, Marshall, $9,050; St. Francis Hospital, Maryville, $16,700; Wright Memorial Hospital, Trenton, $5,000; and the following St. Louis hospitals, Alexian Brothers Hospital, $43,950; Barnes Hospital, $125,000; Christian Hospital, $34,550; De Paul Hospital, $87,500; Missouri Baptist Hospital, $104,450; St. Luke's Hospital, $55,900; St. Mary's Infirmary, $36,150.

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BOOK REVIEWS

Cardiac Diagnosis. A Physiologic Approach, by Robert F. Rushmer, M.D., Associate Professor of Physiology and Biophysics, University of Washington Medical School. Illustrated. W. B. Saunders Company, Philadelphia. 1955. Price $11.50.

This book approaches cardiac diagnosis with particular emphasis on physical and physiologic mechanisms in the normal and abnormal cardiovascular system. It has five basic parts, with a separate introduction to each. Part one considers the function of the normal cardiovascular system, dealing primarily with functional anatomy of cardiac contraction and functional characteristics of systemic and pulmonary circulation. Part two, stresses regulation of the cardiovascular system, principally peripheral vascular controlling mechanisms, as well as regulation of cardiac output, and advances the concepts of neural and humoral factors influencing stroke volume. Part three is concerned with the etiology of congestive heart failure and the factors influencing cardiovascular reserve. Part four considers various methods of detection and interpretation of cardiac disease, such as pressure measurements, changes in size and shape of the heart, determination of cardiac output, characteristics of heart sounds and murmurs, and electrocardiographic principles involved in detecting changes in rate, rhythm and sequence of cardiac excitation, as well as basic theories used to explain variations in the configuration of complexes. Part five was written in order to illustrate the application of physiologic principles to specific problems of diagnosis. Five broad categories of cardiac disease are discussed; namely,

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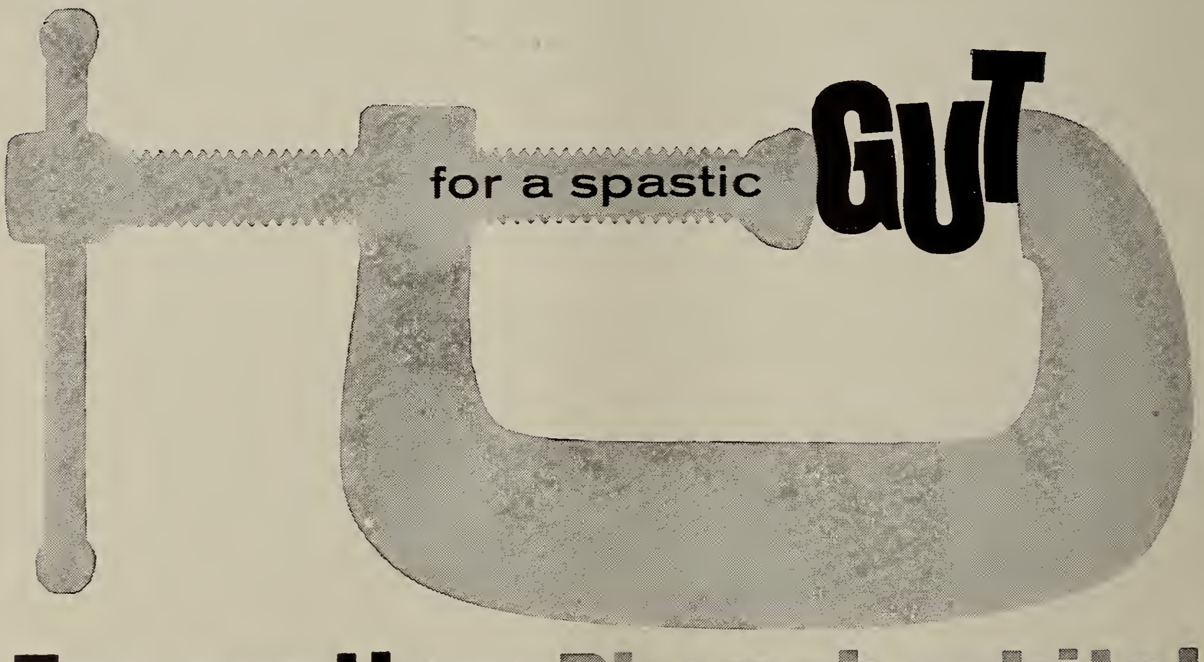

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Each chapter closes with a brief but complete summary and a large reference list, with many recent publications cited.

Illustrations used primarily to explain ideas are found to contain exceptional realism, especially the schematic drawings. Graphs and tables are avoided.

This book should prove especially valuable to medical students and those physicians interested in a physiologic approach to cardiac diagnosis. To be sure, this book does not provide a complete dissertation on heart disease, but such was not intended by the author.

E. R. C.

POMP AND PESTILENCE. INFECTIOUS DISEASE, ITS ORIGIN AND CONQUEST by Ronald Hare, M.D., Professor of Bacteriology in the University of London at St. Thomas's Hospital Medical School. The Philosophical Library, Inc., New York. 1955. Price $5.75.

This small volume deals with the history of infectious disease and infestations. It is written in narrative form in an easy flowing style. Much that is known about the diseases caused by these organisms is presented, beginning with observations made in ancient times and progressing up to the present.

The author points out that, although it may appear that man has at last conquered microorganisms and parasites, these forms of life are undergoing adaptive changes which will permit the continuation of their existence in spite of the action of antibiotics.

This volume is both fascinating and thought provoking, and is to be highly recommended. C. J. S.

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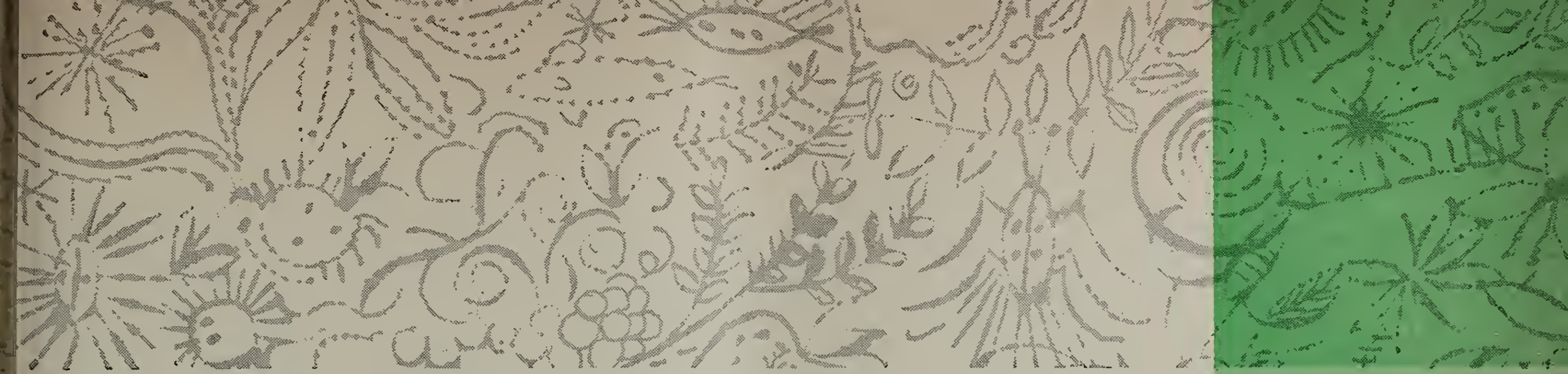

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MISSOURI STATE MEDICAL ASSOCIATION

99th Annual Session, Kansas City
March 31, April 1, 2, 3, 1957

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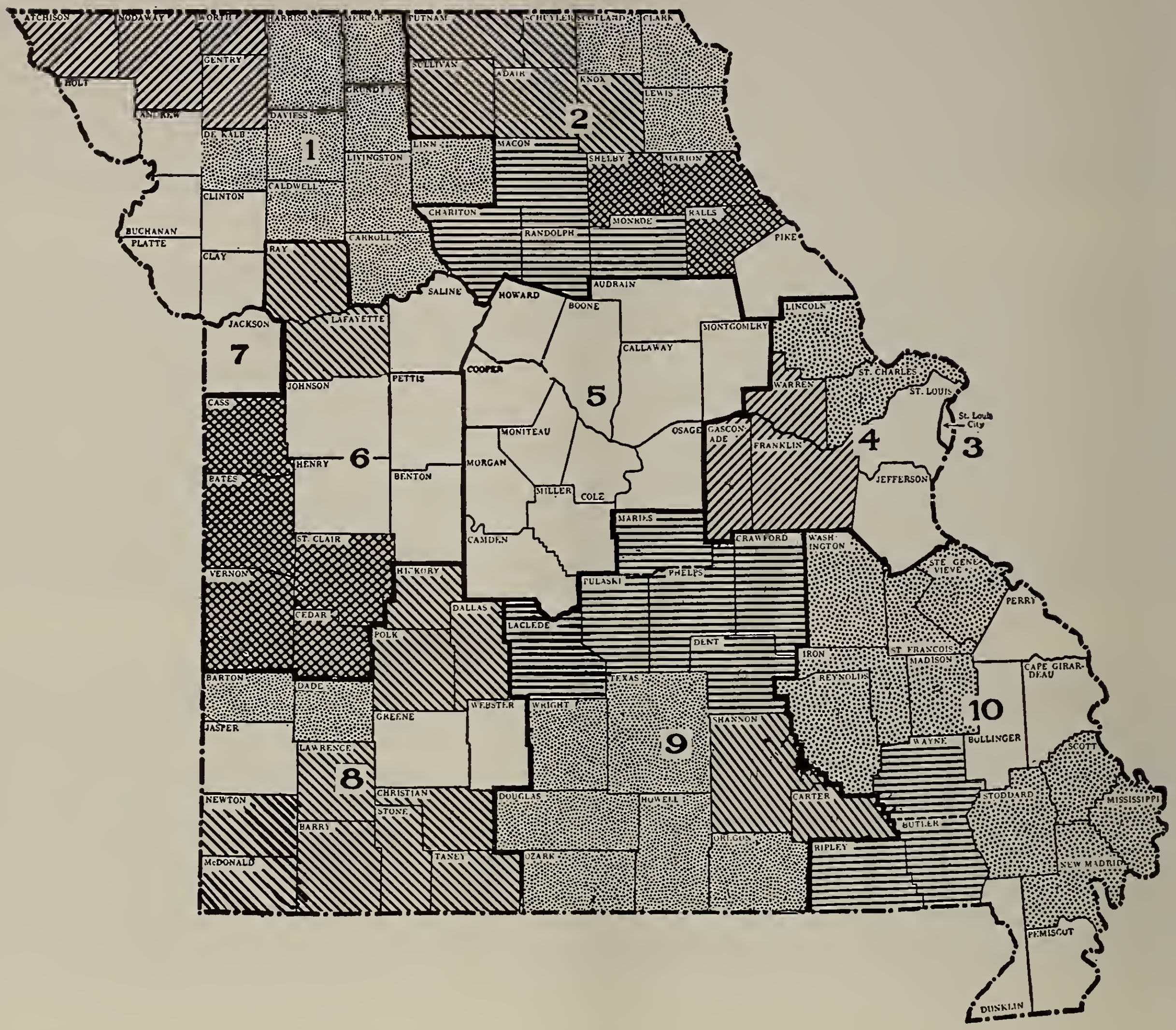

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Shaded areas show hyphenated component societies. Counties listed in italics are unorganized.

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Benton	6	T. S. Reser	Cole Camp	James A. Logan	Warsaw
Boone	5	Roland P. Ladenson	Columbia	Hugh E. Stephenson, J	Columbia
Buchanan	1	E. E. Wadlow	St. Joseph	Wm. B. Rost	St. Joseph
Butler-Ripley-Wayne	10	M. V. Malinoski	Poplar Bluff	Marvin R. Barbour	Poplar Bluff
Callaway	5	F. J. Nichols	Fulton	R. N. Crews	Fulton
Camden	5	E. B. Claiborn	Camdenton		
Cape Girardeau	10	E. F. McDonald	Cape Girardeau	Jo R. Cochran	Cape Girardeau
Carter-Shannon	9	Harry Rollins	Winona		
Chariton-Macon-Monroe-Randolph	2	Clarence C. Cohrs	Moberly	Robert H. Young	Moberly
Clay	1	O. S. Pate	North Kansas City	S. O. Schroeder	Liberty
Clinton	1	W. B. Spalding	Plattsburg	J. P. Mabrey	Plattsburg
Cole	5	J. I. Matthews	Jefferson City	H. C. Stricker	Jefferson City
Cooper	5	D. Hata	Boonville	M. L. Diekroeger	Boonville
Dallas-Hickory-Polk	8	C. H. Barnett	Bolivar	O. A. Griffin	Buffalo
Dunklin	10	Jameso Fuzzell	Kennett	E. L. Spence	Kennett
Franklin-Gasconade-Warren	4	H. F. Hoelscher	Warrenton	John B. Ryan	Hermann
Grand River Medical Society (Caldwell-Livingston-Carroll-Grundy-Daviess-Harrison-Linn-Mercer-DeKalb)	1	John R. Dixon	Brookfield	E. A. Duffy	Trenton
Greene	8	R. Ned White	Springfield	G. Bruce Lemmon, Jr.	Springfield
Henry	6	W. D. Bradshaw	Clinton	R. S. Hollingsworth	Clinton
Holt	1	F. E. Hogan	Mound City	D. C. Perry	Mound City
Howard	5	F. D. Dean	Fayette	W. C. Allen	Glasgow
Jackson	7	Philip L. Byers	Kansas City	James E. Keeler	Kansas City
Jasper	8	Ralph L. Ferguson	Joplin	L. S. Crispell	Joplin
Jefferson	4	Emmett J. Senn	Herculaneum	J. F. Rutledge	Crystal City
Johnson	6	D. R. Holmes	Warrensburg	K. D. Jones	Warrensburg
Lafayette-Ray	6	M. C. Johnson	Richmond	F. A. Crozier	Richmond
Lewis-Clark-Scotland	2	J. R. Bridges	Kahoka	P. W. Jennings	Canton
Lincoln-St. Charles	4	George E. Kister	St. Charles	W. H. Poggeneier, Jr.	St. Charles
Marion-Ralls-Shelby	2	Merrill J. Roller	Hannibal	Sam T. Ellis	Hannibal
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Miller	5	W. L. Allee	Eldon	C. T. Buehler, Jr.	Eldon
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Montgomery	5	E. J. T. Andersen	Montgomery City	S. J. Byland	Wellsville
Morgan	5	Ruth Kauffman	Versailles	R. R. Lyle	Versailles
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Perry	10	J. F. Fairchild	Perryville	G. H. DeGenova	Ste. Genevieve
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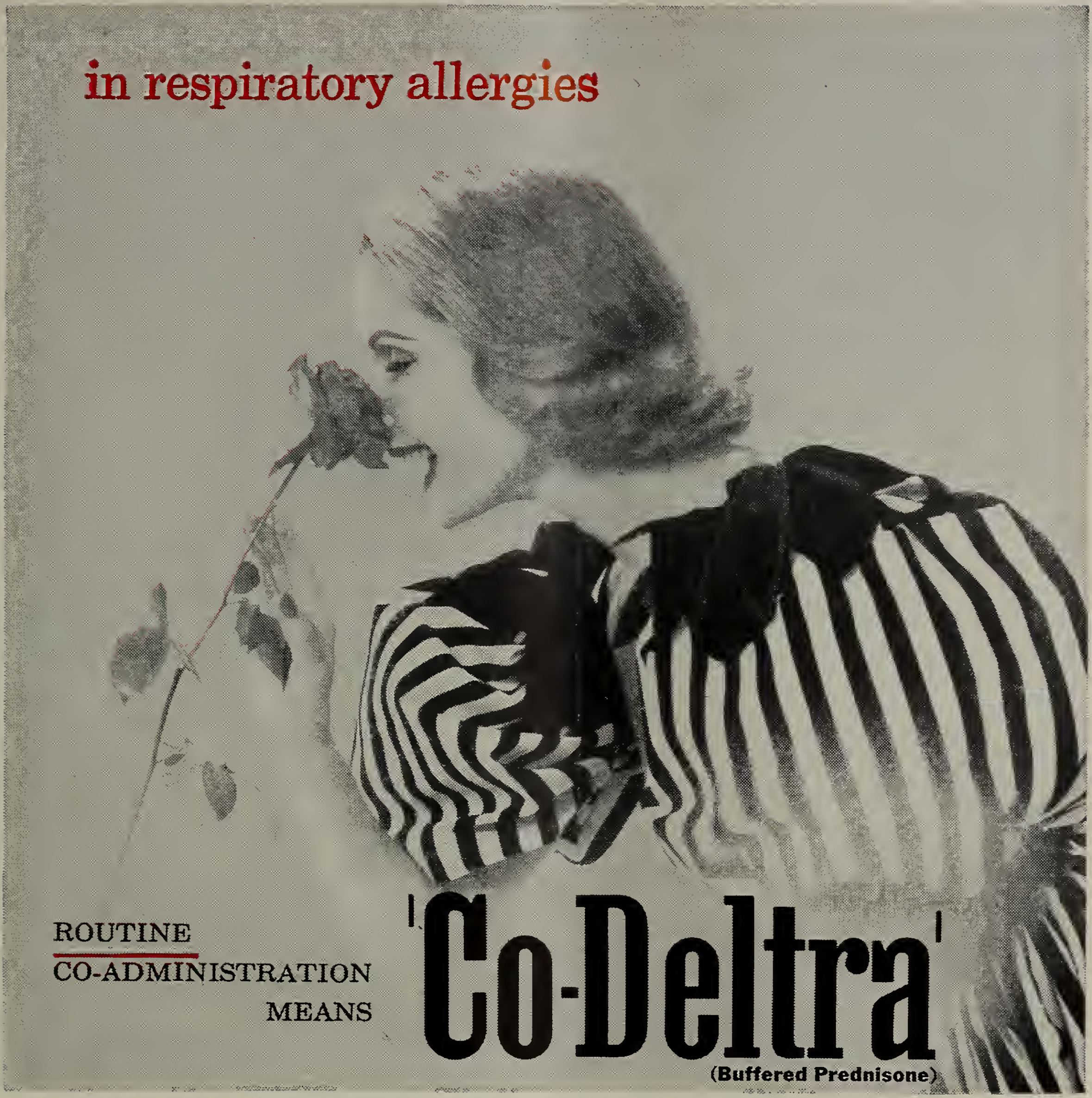
West Central Missouri Medical Society (Bates-Cass-Cedar-St. Clair-Vernon)	6	Carter W. Luter	Butler	Louis P. McCann	Nevada



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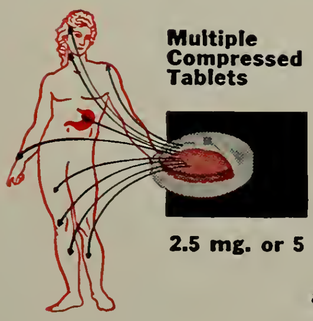

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References: 1. Boland, E. W., *J.A.M.A.* 160:613, February 25, 1956. 2. Margolis, H. M., *et al.* *J.A.M.A.* 158:454, June 11, 1955. 3. Bollet, A. J., *et al.* *J.A.M.A.* 158:459, June 11, 1955.

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Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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Vol. 53 July, 1956 Number 7

Minutes of the House of Delegates

Ninety-Eighth Annual Session
April 8, 9, 10, 11, 1956
St. Louis

Sunday Session

The first meeting of the House of Delegates of the Ninety-eighth Annual Session of the Missouri State Medical Association was called to order at 1:30 p. m., April 8, in the Crystal Room, Sheraton-Jefferson Hotel, St. Louis, with Joseph L. Fisher, M.D., St. Joseph, Speaker, presiding.

Officers, Councilors and Delegates present during the Annual Session follow:

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7th District	Richard H. Kiene, Kansas City
8th District	W. S. Sewell, Springfield
9th District	J. H. Summers, Lebanon
10th District	Ben M. Bull, Ironton

DELEGATES

First District

Buchanan	Robert B. Bristow, St. Joseph
Buchanan	Joseph L. Fisher, St. Joseph
Clay	S. O. Schroeder, Liberty
Grand River	
Caldwell	Frank R. Daley, Hamilton
Livingston	V. D. Vandiver, Chillicothe
Grundy	E. A. Duffy, Trenton
Harrison	A. F. Nibbe, Bethany
Linn	John R. Dixon, Brookfield
Mercer	A. S. Bristow, Princeton
Nodaway-Atchison-Gentry-Worth	Henry C. Bauman, Maryville
Nodaway-Atchison-Gentry-Worth	Frank B. Matteson, Grant City

Second District

Chariton-Macon-Monroe-Randolph	C. C. Weger, Keytesville
Chariton-Macon-Monroe-Randolph	D. E. Eggleston, Macon
Chariton-Macon-Monroe-Randolph	T. S. Fleming, Moberly
Lewis-Clark-Scotland	P. W. Jennings, Canton
Marion-Ralls-Shelby	B. L. Murphy, Hannibal
Pike	John W. Middleton, Louisiana

Third District

St. Louis City	Louis H. Kohler, St. Louis
St. Louis City	Oliver E. Tjoflat, St. Louis
St. Louis City	G. L. Hawkins, Jr., St. Louis
St. Louis City	Charles E. Martin, St. Louis
St. Louis City	Walter Baumgarten, St. Louis
St. Louis City	Paul C. Schnoebelen, St. Louis
St. Louis City	A. W. Neilson, St. Louis
St. Louis City	Victor E. Scherman, St. Louis
St. Louis City	Arthur R. Dalton, St. Louis
St. Louis City	David N. Kerr, St. Louis
St. Louis City	Joseph C. Edwards, St. Louis
St. Louis City	Wendell G. Scott, St. Louis
St. Louis City	E. M. Bricker, St. Louis
St. Louis City	Charles R. Doyle, St. Louis
St. Louis City	Henry C. Allen, St. Louis
St. Louis City	Benjamin H. Charles, St. Louis

The President, Chairman of the Council and President of the Board of Medical Examiners confer.

St. Louis City	Paul F. Max, St. Louis
St. Louis City	Daniel L. Sexton, St. Louis
St. Louis City	Preston C. Hall, St. Louis
St. Louis City	Williard Bartlett, St. Louis
St. Louis City	Bernard T. Koon, St. Louis
St. Louis City	Curtis H. Lohr, St. Louis
St. Louis City	Sam J. Merenda, St. Louis
St. Louis City	Joseph C. Peden, St. Louis
St. Louis City	Jerome I. Simon, St. Louis
St. Louis City	Harold E. Walters, St. Louis

FOURTH DISTRICT

Franklin-Gasconade-Warren	J. L. Mayfield, Washington
Franklin-Gasconade-Warren	G. M. Workman, Hermann
Franklin-Gasconade-Warren	H. H. Schmidt, Marthasville
Jefferson	C. E. Fallet, De Soto
Lincoln-St. Charles	George E. Kister, St. Charles
St. Louis County	James F. Dowd, St. Louis
St. Louis County	W. Sidney Brown, St. Louis
St. Louis County	W. H. Bailey, St. Louis
St. Louis County	Oscar P. Hampton, Jr., University City
St. Louis County	Guy N. Magness, St. Louis
St. Louis County	James R. Meador, Clayton
St. Louis County	Paul R. Whitener, St. Louis

Fifth District

Audrain	Benjamin N. Jolly, Mexico
Boone	A. R. McComas, Sturgeon
Boone	William A. Sodeman, Columbia
Callaway	Henry Durst, Fulton
Cole	J. S. Summers, Jr., Jefferson City
Cooper	B. M. Stuart, Boonville
Howard	W. C. Allen, Glasgow
Miller	W. L. Allee, Eldon
Moniteau	E. A. Kibbe, California
Montgomery	E. J. T. Andersen, Montgomery
Morgan	Jack Gunn, Versailles

Sixth District

Henry	Hugh B. Walker, Clinton
Johnson	Charles M. Lederer, Warrensburg
Lafayette-Ray	I. E. Goldberg, Braymer
Saline	George A. Aiken, Marshall
West Central	
Bates	A. L. Hansen, Butler
St. Clair	R. H. Brownsberger, Appleton City
Vernon	Roy Pearse, Jr., Nevada

Seventh District

Jackson	James D. Bennett, Kansas City
Jackson	H. W. Benoit, Jr., Kansas City
Jackson	D. M. Eubank, Kansas City
Jackson	Will R. Eubank, Kansas City
Jackson	Jean B. Willoughby, Kansas City
Jackson	William W. Gist, Kansas City
Jackson	John A. Growdon, Kansas City
Jackson	Stoughton F. White, Kansas City
Jackson	F. J. McCoy, Kansas City
Jackson	Gerald L. Miller, Kansas City
Jackson	Raymond L. Morrow, Kansas City
Jackson	Clark W. Seely, Kansas City
Jackson	James R. McVay, Jr., Kansas City

Registration taken care of, there was time for visiting.

Eighth District

Barton-Dade	Rudolf Knapp, Golden City
Greene	John P. Ferguson, Springfield
Greene	W. W. Tillman, Jr., Springfield
Greene	C. E. Lockhart, Springfield
Jasper	B. E. DeTar, Sr., Joplin
Jasper	John A. Putnam, Carthage
Ozarks	
Barry	Mary Jane Newman, Cassville
Lawrence	Kenneth Glover, Mt. Vernon
Taney	W. C. Magness, Branson
Newton	M. C. Bowman, Neosho
Webster	Thomas M. Macdonnell, Marshfield

Ninth District

Carter-Shannon	Charles D. Ottensmeyer, Van Buren
Mid-Missouri	
Phelps	W. R. Lytle, Rolla
Crawford	C. E. Carnahan, Bourbon
Dent	B. J. Bass, Salem
Maries	F. L. Kozal, Belle
Laclede	H. W. Carrington, Lebanon
South Central	
Howell	Jack N. Wiles, West Plains
Oregon	C. W. Cooper, Thayer

Tenth District

Cape Girardeau	J. H. Trolinger, Jackson
Dunklin	W. D. English, Cardwell
Mineral Area	
St. Francis	A. G. Karraker, Farmington
Iron	R. E. Harland, Ironton
Perry	J. J. Bredall, Perryville
Semo	
Scott	W. O. Finney, Chaffee

The Reverend Early W. Poindexter, Canon, Christ Church Cathedral, St. Louis, delivered the invocation.

Mr. Tom R. O'Brien read the roll of delegates and alternates, which showed a quorum present.

R. O. Muether, M.D., St. Louis, reported briefly for the General Committee on Arrangements.

SPEAKER: The next order of business is the reading of the minutes of the previous meeting. They were published in the July 1955 issue of MISSOURI MEDICINE. What is your pleasure?

Upon motion, duly seconded, the minutes were approved as published.

The Speaker gave instructions to the delegates and expressed regrets that due to illness the incoming President, Carl F. Vohs, M.D., St. Louis, was compelled to be absent and asked if there was an expression from the floor.

At the request of Curtis H. Lohr, M.D., St. Louis, on motion of Victor E. Scherman, M.D., St. Louis, duly seconded, the rules were suspended for immediate action on a resolution.

CURTIS H. LOHR, M.D., St. Louis: I have been asked by the St. Louis delegation to present the following resolution for consideration:

WHEREAS, Dr. Carl F. Vohs, the incoming President of the Missouri State Medical Association, is prevented by illness from being with us this afternoon, and

WHEREAS, Everyone of us here present—not only in the delegation of the St. Louis Medical Society, but from every part of the state—is conscious of the long service and forward-looking leadership that Dr. Vohs has given to the medical profession in Missouri for many years, and

WHEREAS, During all this time, his prudence and his wisdom have been exceeded only by his qualities of kindliness, friendliness and loyalty, now therefore be it

Resolved, That this House of Delegates immediately send a message of affectionate greeting to Dr. Vohs at his hospital, expressing our deep wish for his speedy restoration to health and our satisfaction at the fine progress he is making—and expressing, too, the need we all feel for his leadership in the high position to which we elected him last year, and be it further

Resolved, That a bouquet of the most cheerful flowers to be found accompany this message of greeting.

The resolution was unanimously adopted and the Secretary instructed to carry out the provisions of the resolution.

Victor B. Buhler, M.D., Kansas City, gave the President's Message as follows:

PRESIDENT'S MESSAGE

Mr. Speaker, Members of the House of Delegates: How quickly a year passes. For me this has been an interesting year—and an enjoyable one.

I have particularly appreciated the opportunity I have had as President to get around the state—to meet and talk with more of the physicians of Missouri about their problems and the problems we face as a profession.

Now, as this year is about to close, I feel as I suppose all retiring presidents must feel. The year has passed too quickly. All the problems have not been solved.

What is more—there seem to be new problems that were not so evident as the year began.

In this report, I should like to touch only upon a few highlights. Your committees have been working hard through the year on every phase of the problem of health care. Their reports will give you the important details of what has been done. I hesitate to attempt any brief review of these reports, because I feel you should have them in as full and complete a form as possible.

The House of Delegates was well attended.

If I may, then, I would like to talk about three things, principally, which might be labeled unfinished business.

Ideally, any report of stewardship should be a report of progress. I feel that this year, fortunately, I can make such a report. Not that our progress has been spectacular. It has not. In fact, in perhaps our most important effort, we did not succeed. But my own personal feeling is that we did make progress.

As this year began, I spoke to you of a principle that I believe is fundamental to what we as an association are trying to accomplish. That principle is that health care is, at root, the responsibility of the individual physician. Basically, in all our activities, our efforts are directed toward better care of the people through safeguarding the identity of the individual medical practitioner and upholding his responsibility.

The foundation upon which that principle could logically rest would be a precise definition of just what a medical practitioner is, and what he should know, in order to be competent to care for the health of the people of Missouri.

We still do not have such a definition. You know the efforts we have made to obtain one. You know that, as a result of action by this House, we sponsored a bill to assure the public that practitioners of the healing arts in this state would be competent. You know, too, that that bill died last spring. It was not reported out of the Senate Committee on Public Health.

The bill provided that, for the future, every person who desired to treat the ills of the public would have to meet a single standard of competence. He would have to be a graduate of a recognized school and would have to pass examinations in both the basic and clinical sciences. There is only one reason for such a law, of course. That is to give the public assurance that all practitioners licensed by the State of Missouri will have met a minimum standard of competence. Groups of practitioners that cannot meet such a standard opposed the bill. These groups put pressure against it. But the real death blow was the apathy of physicians as a whole.

There were a few physicians indeed, who indicated that it would be a good thing if the bill were killed—mostly because, in my opinion, they were unwilling to see that an immediate and necessary compromise has to be accepted in order to obtain the long-term essential goal. The big stumbling-block, however, was simply lack of support. Naturally, the legislators would feel that if the physicians themselves were not enthusiastically behind this thing, it was not very necessary. And the public and the press would feel the same way. So the bill died.

I realize that this does not appear to be much in the way of progress. Yet I said I thought we had made progress.

Well, first, if nothing else, our bill provided a start —it offered a first attempt at a realistic solution of the problem.

During this same session of the legislature, there was a bill to permit the chiropractors to extend their field of practice and there was a bill for the licensing of naturopaths. These bills were defeated. In some measure, it is quite possible that they were defeated because the arguments for our bill for a single license had been brought to the attention of the legislators.

I think we have made progress for a second reason. In traveling around the state since last spring, I think I detect more awareness of the problem on the part of the people, and more important, on the part of the physicians. Unfortunately, so far we have no way of measuring this awareness, or the willingness to fight, if you please, for this important step.

This House of Delegates took a stand on principle when they came out for a single license for medical practitioners in Missouri. We have now come to a fork in the road toward that objective. What are we now to do about the problem?

Perhaps we were ahead of the proper time. Perhaps Missouri physicians as a whole are not yet ready to make the necessary compromises and the necessary effort.

On the other hand, perhaps the increasing efforts of quacks and cultists to expand and be recognized have impressed the membership that time is becoming short —that unless something is done soon, we may face even greater compromises. Perhaps the awareness of the problem has increased to such a degree that further efforts to obtain a single license act will gain enough support to bring success.

Here is the first piece of unfinished business, then. It will be for you to decide which fork of the road we must take.

Turning to the national scene, during the year, two phases of the Social Security program have been of special interest to the medical profession. The first is the proposal to further extend Social Security to additional groups—which again brings up the question as to whether or not physicians should be covered.

As you know, we polled the entire membership of the Missouri State Medical Association to get an expression from the physicians themselves. In explaining the question, we tried to be as fair as possible and present the arguments on both sides.

Incidentally, this survey proved extremely popular. Response to the poll was excellent—many times greater than is usual for such mail votes. I think the response and the favorable comments we received may be an indication to us that similar surveys should be used to a greater extent on such questions.

The results were overwhelmingly against compulsory Social Security coverage for physicians. On the question: Do you favor compulsory Social Security coverage for physicians, almost 82 per cent voted "No."

A majority, however, would favor giving physicians a voluntary choice to be covered by the system. Some 63 per cent voted for this; 37 per cent against.

If the limitations on earnings after retirement were substantially raised—or eliminated—59 per cent of Missouri physicians would be for Social Security coverage.

Finally, it is apparent that physicians, in this state at least, feel that they should receive the same tax benefits now extended to the man who receives a corporation pension. More than 86 per cent voted in favor of a law to permit tax deferment on retirement funds, along the lines of the Jenkins-Keogh bill.

The results of the survey will be made available to you in more detail for your guidance. They are also being made available to the American Medical Association as an expression of the opinions of physicians in Missouri.

Still pending in the Senate is House Resolution 7225, which would, among other things, make Social Security benefits available to totally and permanently disabled persons at age 50. I know you are all familiar with this bill and the dangers inherent in it. An amendment has already been suggested which would drop the age requirement altogether.

Representatives of the American Medical Association and a number of the state associations have appeared at the hearings held by the Senate committee to explain the position of the medical profession. They have pointed out the difficulties of determining total and permanent disability, the possible economic effects of this proposal and the effects on rehabilitation programs that it would have. In Missouri, we have urged physicians to support this position by communicating with their representatives in Congress.

Physicians have also been interested, of course, in the various proposals for medical care for the dependents of military personnel. Officially, the medical profession has taken no stand on the advisability of such legislation. If Congress feels it desirable to provide for such care, however, the profession feels that the services of civilian physicians and hospitals should be used wherever possible, and paid for at prevailing rates, with provision for free choice of physician.

Several methods of providing dependent's care are now under consideration. These vary considerably in their provisions. However, all of them are directed toward the end that servicemen's dependents would receive care on a service basis—that is to say, the physicians who would participate in the program would agree to provide medical and surgical services at a predetermined schedule of fees for various procedures, without extra charge to the patient.

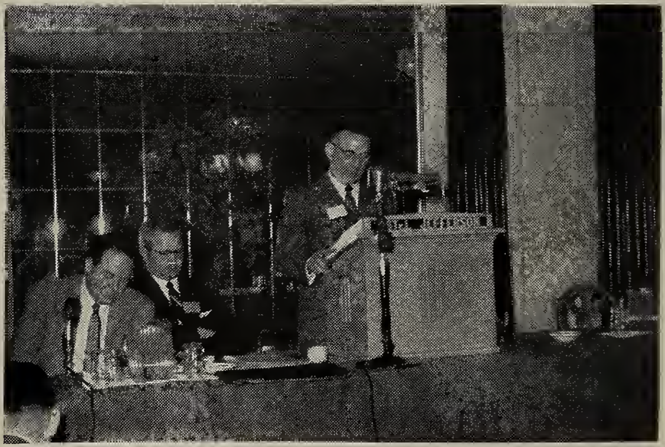
Several months ago, the Defense Department, in investigating ways that a program of dependent's care might be administered, asked the Blue Shield plans across the country if they could provide such a service program. Now, the trend across the nation is toward the service principle in Blue Shield plans, as against indemnity programs. The latter merely pay the physician a definite sum for each given procedure, and he may or may not decide to charge an additional fee.

Depending on the Defense Department's requirements, those plans that have service programs would meet the need in the dependent's care program, while indemnity plans would not.

Let me hasten to add that I did not bring up this subject simply because of the question of medical care for dependents of military personnel. I believe the principle here is broader.

The problem of providing health protection for the people who need it most has not yet been met. While a Blue Shield service benefit program is certainly not a cure-all, I believe it goes far toward remedying many of the deficiencies that now exist. Let me make it clear that in an over-all service benefit program, available to dependents of military personnel and the general public alike, no one is proposing that physicians' fees be set by an insurance plan. Physicians should be free to charge a fair price for their services. The idea is to make service benefits available to those people whose incomes fall below a certain level and provide fees for the physicians which reflect the average of fees normally paid by families within this income level.

A service plan seems to me to be the natural development of the ideals and traditions of the medical profession. These ideals and traditions led the profession to become part of a plan to insure people against the cost of their medical care. Is it not appropriate that the



The president gave his message to the House of Delegates.

physicians' own plan cover the entire cost of service to the low income patient?

In fact, we hear the argument that it is not fitting for physicians to support and underwrite a medical care plan with the idea that it would pay only part of the cost of their services to low income patients. By doing so, they would, in effect, seem to guarantee payments to themselves, yet leave themselves free to make additional charges to the patient. Does such a plan really measure up to the standards of the profession, if there is any question as to whether it benefits the physician more than the patient?

Later, you will hear a report of the Council on this subject. It is my hope that you will endorse the principle of a service contract for Blue Shield of St. Louis—that you will recommend a service program which will include as many phases of the practice of medicine as practicable—and that you will request details of such a plan be drafted as soon as possible for the approval of the county medical societies.

Those are my three principle points of unfinished business—a single standard of competence for the practice of health care, national legislation on Social Security and medical care for dependents of military personnel, and a service benefits program for St. Louis Blue Shield.

We have, of course, continued our efforts to locate physicians in the rural areas of Missouri. During 1955, some forty-nine physicians established practices in towns of 15,000 or less. We feel we are making progress, and there is every reason to believe that we will make further progress as time goes on.

The problem of corporate practice of medicine is becoming intensified in Missouri, with new pressures arising in this connection. Both the Committee on Hospital and Professional Relations and the Council will have reports to make to you on this. I hope that you will consider these reports, and their implications for us, with the utmost care. This problem, second only to the problem of cultism, may present our greatest challenge in the months to come.

Finally, I would like to express my sincere appreciation to the Council, the Committees, the staff of the Association and to the individual physicians who have been of such great aid to me and to the medical profession in Missouri this year.

Truly, these are men of good will. It has been an honor and privilege to serve you in their company. The year has passed too quickly.

Thank you.

The Speaker referred the President's Message to the Reference Committee on Reports of Officers.

Speaker: In the absence of our President-elect, Dr. Vohs, I will ask the Secretary, E. Royse Bohrer, M.D., Jefferson City, to read the Recommendations of the President-elect.

RECOMMENDATIONS OF THE PRESIDENT-ELECT

More than a hundred years ago, when the first President of this organization, Dr. George Penn, took office—there was unfinished business awaiting him too. I think Dr. Buhler has been too modest. I think we have accomplished a great deal under his leadership. And I think if there were not always unfinished business, we would probably have to disband for a lack of purpose.

Seldom is anyone given the opportunity to choose the uncompleted work he is bequeathed. But if I had had that opportunity, I might well have selected the things that Dr. Buhler has mentioned. I have been close to these problems, and I am intensely interested in doing what I can to help in finding their solutions.

I have not, however, a formal program of action to present to you at this time. We stand at a juncture. It will take the collective intelligence, consideration and action of all of us to set the direction which will be the best to follow. I have my own opinions, of course.

I believe, for example, that we should have only one standard in the State of Missouri for judging the competence of a man to take care of the sick. I think the wording of the legislation we proposed last year was close to what is needed to obtain such a standard. But I also believe we should consider carefully the prevailing attitude of the physicians of Missouri. I feel that the public needs, and is entitled to, the assurance that everyone given the right to practice in the field of health care meets a necessary and minimum standard of training, knowledge and competence. But at the same time, I feel that, in trying to achieve this, this House should not adopt a course of action that the membership will not support.

I have my own very definite opinions on the subject of St. Louis Blue Shield, too. It is no secret that I have been in favor of a service benefits program for a long time. But Blue Shield is the doctors' own plan. Neither I, nor anyone else, wants to be in the position of trying to force something that the physicians do not want. Again I think this is a decision for all of us. But—perhaps I can be persuasive; or at least explanatory.

Reports held attention of the members of the House.

There is no doubt but that the public is interested in health protection. More than 102 million people are now covered by insurance in one form or another, and the number is still growing. Of these, more than 33 million are Blue Shield subscribers, and 50 million belong to Blue Cross.

Remember, this whole program has only been in existence some twenty-five years. A tremendous job has been done to persuade people to set aside in advance small sums to pay the cost of health care. This job was led by, and given impetus by, the physicians and hospitals of America.

It has been a good thing for everyone. The patient is relieved of a great deal of the financial worry of illness. In many cases, he seeks care sooner, and we are able to do more to help him. From our side, health insurance has helped stabilize the incomes of both doctors and hospitals.

Now, there is no getting around the fact that the cost of health care has gone up greatly, even though, over-all, it has not gone up nearly as much as other costs of living. It is here, especially, that the service type of Blue Shield contract benefits the patient.

A service contract is one in which the subscriber receives an agreement from Blue Shield stating that he is entitled to medical and surgical care from participating physicians. These physicians, in turn, agree that they will provide surgical and medical benefits to all subscribers (1) without additional charge—if the subscriber's income does not exceed a certain amount —say $5,000 or $6,000 a year; (2) on the basis of their usual fees for subscribers whose incomes exceed the agreed amount. In these cases, of course, the physician may charge the patient an additional fee.

In either case, the plan pays the physician the same amount for the same procedure.

What are the advantages of a service plan? Foremost, it provides something that is needed by the average citizen. Every person eligible gets full coverage —there is no worry about additional cost of medical care.

A service plan for Blue Shield increases our factor of competition. It is important that Blue Shield compete well. We have shown the way, and proved that health insurance is practical. The history of Blue Shield has been one of continuing improvements to provide better protection, and this has been of benefit to the whole of the public.

Under a service plan, a fair fee or average fee is paid for all services performed for members. Perhaps, as a result, many patients normally charged a token amount, or nothing, become paying patients. This, of course, helps provide stability of income for the doctor. It eases the problem of collections, because Blue Shield pays promptly—directly to the physician—when reports are received. There is a favorable psychologic effect on the patient, too, when he feels he is paying his own way.

A service plan presents no change in present methods of care. It is based on a free choice of physician. It helps, indeed, to preserve the patient-physician relationship by removing a sometimes difficult element of cost. Contrast this with closed-panel plans, under which organizations hire a staff of physicians and pay them on a salary basis to provide service to the members of the group. So far in Missouri, programs are relatively minor in scope—limited to persons who work in a few industries. But such movements are much more extensive in other parts of the country. You may have heard of H-I-P in New York, and Kaiser Permanente on the West Coast. Do not forget that these programs are on a full service basis, not only for medical-surgical care, but also for periodic health check-ups.

There is definitely a demand for full service plans. Does the average physician want to see an extension of the closed-panel system? Or should his own Blue Shield plan move to fill the need?

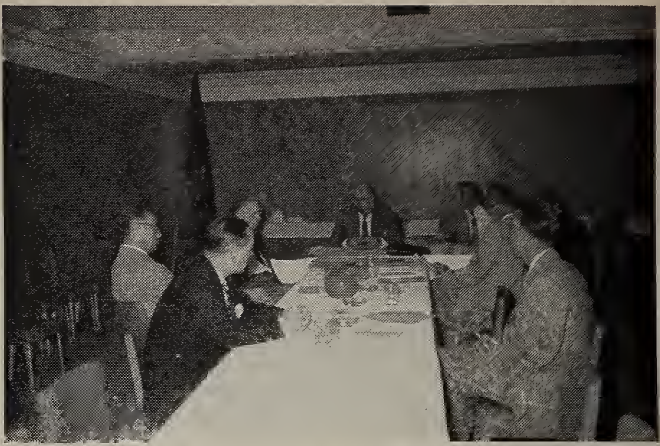
The traditions of medicine are directed toward serving the people. But serving is not limited alone to the practice of our profession. The physician also contributes as a citizen to the betterment of his community. Through research and advancement of knowledge, he works to benefit all mankind. A Blue Shield service benefits program would certainly seem a natural extension of the humane ideals of medicine.

Now, I am not pretending that there are no difficulties in setting up a service plan.

Some argue that service benefits would tend to set a dollar value on medical care that does not now exist. I suggest, however, that the patient is interested in care—no dollar value. The schedule of fees can certainly be a closed matter between the physicians and the plan.

The income level is also something that can be fairly determined. Some plans have two service programs, with one income limit at about $3,600 and the other at $6,000, and the schedule of fees vary accordingly.

Then there is the question of a third party entering the picture. Is the physician still able to determine his own charge? I can only say that, in an individual case, the service plan may impose a certain amount of restriction. But Blue Shield is still the doctors' plan, and whatever fees are suggested will have to be approved by the physicians themselves through their county societies.



The Committee on Scientific and Postgraduate Work reported on work during the year.

A service program—deemphasizing the factor of cash and stressing the provision of service—would bring a great deal of credit to the medical profession in the eyes of the public. The untrue and unfair claim could no longer be made that doctors add their usual charge to the Blue Shield allowance when they learn insurance is involved.

And in keeping with the standards of the profession, would not a service benefits plan give the participating physician a sense of helping to solve a national problem, while also helping to preserve the freedom of medicine?

I believe the St. Louis plan can develop a workable, practical service program which will fit the needs of both the public and the participating physicians. I hope you will direct them to try.

One final word—on the corporate practice of medicine. Various devices are coming into vogue—various pressures are being brought into play in this connection. The more we yield to these, either consciously or unsuspecting, the more we will be giving tacit approval —condoning practice. Here, too, we will need careful consideration, and the support of the membership, in planning our course to meet the problem.

Gentlemen, you have done me great honor in naming me your President. I pledge you my best efforts in carrying out the responsibilities of the office, and in upholding that honor.

Thank you.

The Speaker referred the Recommendations of the President-elect to the Reference Committee on Reports of Officers.

The Speaker appointed the following Reference Committees and gave the time and room number for the meeting of each committee.

REFERENCE COMMITTEE ON AMENDMENTS TO THE CONSTITUTION AND BY-LAWS

Guy N. Magness, M.D., University City, Chairman.
A. G. Karraker, M.D., Farmington.
Roy W. Pearse, M.D., Nevada.
Mary J. Newman, M.D., Cassville.
Jack N. Wiles, M.D., West Plains.

REFERENCE COMMITTEE ON RESOLUTIONS

Daniel L. Sexton, M.D., St. Louis, Chairman.
John P. Ferguson, M.D., Springfield.
Robert Bristow, M.D., St. Joseph.
Hector W. Benoit, M.D., Kansas City.
W. L. Allee, M.D., Eldon.

REFERENCE COMMITTEE ON MISCELLANEOUS AFFAIRS

Henry Durst, M.D., Fulton, Chairman.
Carl C. Weger, M.D., Keytesville.
H. C. Bauman, M.D., Maryville.
James R. Meador, M.D., St. Louis County.
J. L. Mayfield, M.D., Washington.

REFERENCE COMMITTEE ON MEDICAL EDUCATION AND PUBLIC WELFARE

J. H. Trolinger, M.D., Jackson, Chairman.
P. W. Jennings, M.D., Canton.
A. W. Neilson, M.D., St. Louis.
Frederick J. McCoy, M.D., Kansas City.
W. C. Allen, M.D., Glasgow.

RFFERENCE COMMITTEE ON REPORTS OF OFFICERS

William W. Gist, M.D., Kansas City, Chairman.
George L. Hawkins, Jr., M.D., St. Louis.
Wallace D. English, M.D., Cardwell.
Charles E. Lockwood, M.D., Springfield.
H. W. Carrington, M.D., Lebanon.

PARLIAMENTARIAN

Mr. John W. Noble, Kennett, and Mr. Tom R. O'Brien, St. Louis.

The report of the Secretary, E. Royse Bohrer, M.D., Jefferson City, follows:

REPORT OF THE SECRETARY

On December 31, 1955, the official membership of the Association was as follows:

Status of Membership

Number of Members, January 1, 1955	3,672
New Members	212
Members Reinstated	3
Total	3,887
Members Dropped	31
Members Deceased	68
Members Transferred	49
Members Resigned	16
Total	158
Number of Members, December 31, 1955	3,723

The Committee on Nominations, which is appointed by the President from the House of Delegates, must submit nominations for the following officers:

Three Vice Presidents to fill the expired terms of L. P. Forgrave, M.D., St. Joseph; Byron M. Stuart, M.D., Boonville, and D. I. L. Seabaugh, M.D., Jackson.

Two Delegates and corresponding Alternates to the American Medical Association to fill the vacancies created by the expiration on December 31, 1956, of the terms of Durward G. Hall, M.D., Springfield, Alternate, Guy N. Magness, M.D., University City; and A. S. Bristow, M.D., Princeton, Alternate, W. J. Shaw, M.D., Fayette.

The terms (two years) of the Councilors of the odd numbered districts expire this year: Donald M. Dowell, M.D., Chillicothe, First District; R. O. Muether, M.D., St. Louis, Third District; J. Loren Washburn, M.D., Versailles, Fifth District; Richard H. Kiene, M.D., Kansas City, Seventh District; J. H. Summers, M.D., Lebanon, Ninth District. Delegates from these districts shall meet prior to the last day of the meeting and elect the Councilor for their District. The election shall be certified to the House of Delegates on a prescribed form which will be furnished. Lists of Delegates from the various districts will be available to the Councilors and may be checked for those present at the Registration Desk at the Session.

The Annual Session will meet for four days, beginning Sunday, April 8, at 1:30 p.m., with a session of the House of Delegates, and closing Wednesday afternoon, April 11, with a final session of the House. The House will also meet on Monday, April 9, at 4:00 p.m. The sessions of the House will be held in the Crystal Room of the Sheraton-Jefferson Hotel. Registration will be open on Sunday from 12:00 noon until 2:30 p.m. and from 8:00 a.m. until 5:00 p.m. on Monday and Tuesday and from 8:00 a.m. until 12:00 noon on Wednesday.

The Annual Banquet in Honor of Past Presidents will be held on Tuesday evening, April 10, at 7:30 p.m., in the Gold Room at Hotel Sheraton-Jefferson. Dr. Elmer Ellis, Columbia, President, University of Missouri, will be the guest speaker.

E. Royse Bohrer, Secretary.

The Speaker referred this report to the Reference Committee on Reports of Officers.

The report of the Executive Secretary, Mr. Tom R. O'Brien, follows:

REPORT OF THE EXECUTIVE SECRETARY

The personnel of the office, Mr. Ray McIntyre, Miss Helen Penn, Mrs. Bertha Thomas, Mrs. Gloria Luecke and Miss Donna Barth are most deserving of the thanks of the members for devoted, loyal service. To all of them I wish to extend my sincere thanks for their help to me. In addition, we were all saddened by the unexpected death on Christmas Day of Mrs. Marguerite Harris. She had served the Association well in many capacities prior to her death.

The reports of the Council, Standing and Special Committees, contained in the "Reports" indicate many of the activities of the Association. Either Mr. McIntyre or I and often Miss Penn attend all committee meetings. The officers, committee members and other members have cheerfully given of their time to consider problems of interest to all members. I wish to take this opportunity to thank them for their help to the staff and to the Association.

T. R. O'Brien.

The Speaker referred this report to the Reference Committee on Reports of Officers.

The report of the Treasurer, Jerome I. Simon, M.D., St. Louis, follows:

REPORT OF THE TREASURER

The report of the Treasurer is covered in the Financial Statement of the Association for 1955 which appeared in the March issue of Missouri Medicine. Since Delegates have had that issue of the Journal of the Missouri State Medical Association, the report is not repeated in these reports.

Jerome I. Simon, Treasurer.

The Speaker referred this report to the Reference Committee on Reports of Officers.

The report of the Committee on Scientific and Postgraduate Work, Alphonse McMahon, M.D., St. Louis, Chairman, follows:

REPORT OF THE COMMITTEE ON SCIENTIFIC AND POSTGRADUATE WORK

The Committee has arranged the scientific program for the 1956 Annual Session, which, it feels, will be valuable to every member of the Association. It has been planned as a practical, three day postgraduate course, and speakers have been chosen for their ability in their fields of practice as well as their ability to present material to the membership. There will be nine guest speakers, from out of the state, speaking on a wide spread of subjects. Two panel presentations have been planned, both slanted for practical application of information gained by the listener. One of these will cover "Acute Surgical Emergencies," and the other is on the theme "What's New in Medicine?" Four symposia will be presented, the subjects being "Medicine," "Surgery," "Obstetrics" and "Pediatrics." In addition, two round table luncheons will be held. These should give listeners a fine opportunity to ask questions of the panelists. The Committee hopes that attendance at the scientific sessions will be high, as it believes each speaker has a practical, applicable message.

The Committee is pleased to note the good attendance that many of the medical societies over the state are now having at their meetings. Some of the reasons for increased attendance are: more dinner meetings, joint meetings with Woman's Auxiliaries, hyphenations of smaller societies, more careful selection of meeting places, varied programs, regularly scheduled meetings, shorter programs, joint meetings with allied groups and other professions, postgraduate credit for Academy of General Practice membership and individual notification of local society members well ahead of each program date.

In addition to the foregoing, your Committee feels that the reduction in the number of postgraduate programs offered throughout the state, by coordinating the activities of this Committee with the Education Committee of the Missouri Academy of General Practice, has raised the attendance at meetings held. Arrangements whereby the Missouri Academy of General Practice furnished a number of the scientific programs for regular county medical society meetings have been worked out. When these programs are offered, those doctors attending their local society meetings, who are Academy members, also receive Category I Postgraduate Credit toward continued Academy membership requirements. This procedure means that, logically, more Academy members will attend more of their county medical society meetings enhancing attendance. Furthermore, fewer additional postgraduate meetings are needed in order for Academy requirements to be met.

The Committee, through the State Association headquarters office, has jointly sponsored this year with other committees of the Association a number of scientific programs before joint meetings of groups of contiguous medical societies in various areas of the state. One successful example of this endeavor has been carried on with the Maternal Welfare Committee. That Committee is anxious to present the picture of maternal mortality in Missouri, which their recent studies unveil, to the physicians over the state. The Committee has helped to set up area meetings of doctors where members of the Maternal Welfare Committee have discussed the maternal mortality problems of the particular areas.

The Committee met several times on arranging the program.

The Committee has cooperated with the Missouri Academy of General Practice Education Committee and the Medical School of the University of Missouri in promoting a series of six postgraduate programs at the University for Central Missouri physicians during the fall of 1955 and winter and spring of 1956.

Similarly, the Committee has worked with the Academy Committee and St. Louis University Medical School during the last year in presenting panel discussions on heart disease before a number of larger county medical society meetings.

The Committee takes this opportunity to commend certain county medical societies which have made unusual efforts this year in developing special postgraduate meetings for their areas: The Cape Girardeau County Medical Society and its "2nd Annual Southeast Missouri Cancer Conference," the Jasper County Society for its postgraduate course in cooperation with the Medical School of Missouri University, the Greene County Society for a similar course to that of Jasper and for the "1st Annual Ozark Empire Cancer Conference" on April 25, 1956, and the Clay County Medical Society for its "8th Annual Clinical Conference."

The Committee expresses its thanks and appreciation to all those physicians who have appeared on the many scientific postgraduate programs held over the state this last year.

Alphonse McMahon, Chairman
Roy W. Pearse, Jr.,
Michael S. Wepprich,
Arthur B. Smith,
M. Pinson Neal,
Eugene M. Bricker,
Ronald F. Elkins,
Charles M. Grace,
Allen I. Herman,
Carroll P. Hungate,
Charles E. Martin,
Peter V. Siegel,
Charles F. Wilson.

The Speaker referred this report to the Reference Committee on Reports of Officers.

The report of the Committee on Publication, W. F. Francka, M.D., Hannibal, Chairman, follows:

REPORT OF COMMITTEE ON PUBLICATION

January 1, 1955, to December 31, 1955

The 52nd volume of Missouri Medicine was completed with the December 1955 issue. During 1955 there were published thirty-two scientific articles, eight postgraduate reviews, ten case reports, ten special articles, thirty-six editorials, eleven "Curiosa et Trivia," eleven articles from the Missouri Academy of General Practice, six "Crossroads Comment," eleven "Capsule Clinics," eleven articles on the Woman's Auxiliary, eleven "Missouri Medicine in Review," five articles on Blue Cross-Blue Shield, eleven President's pages, five articles from the Division of Health, eleven articles by the Field Secretary, 369 news items, sixty-six death notices, listings of 200 new members, ninety-nine meetings of county medical societies, eleven articles on the medical schools, seven "Pettis County Pot Pourri," ten articles on organization, twenty-eight miscellaneous articles, six letters, twenty-nine book reviews, two legislative articles per se, minutes of the House of Delegates and a roster. There were 484 reading pages and 440 advertising pages and twenty-eight inserts.

Advertising in Missouri Medicine from January 1, 1955, to December 31, 1955, earned $30,538.11. Subscriptions of nonmembers amounted to $210.70, making $30,748.81 earned by the publication. The cost of production (printing and illustrations) was $23,844.94.

The special committee of the Council, under which Missouri Medicine was published during 1955, rec-

A RESEARCH MILESTONE

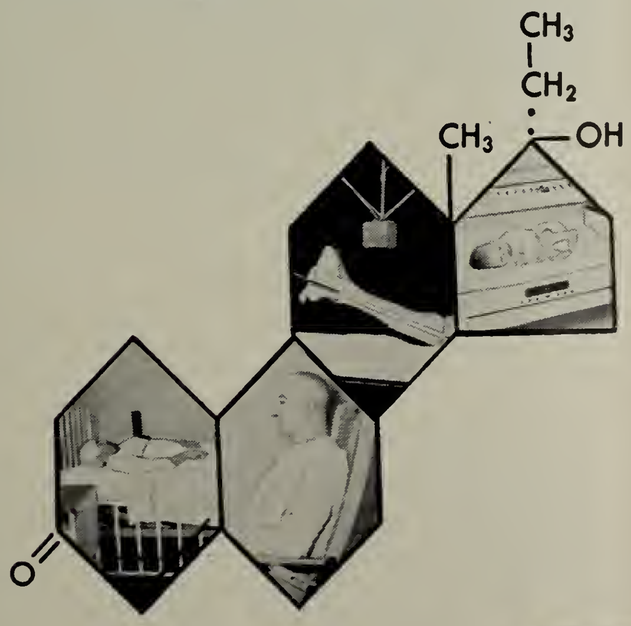
Nilevar*

(BRAND OF NORETHANDROLONE)

Searle's New and Practical Steroid Specifically for Protein Anabolism—

It has long been recognized that a substance which would promote protein anabolism would be of inestimable value in therapy. The androgens have this property, but unfortunately they also exert actions on secondary sex characteristics. These effects are commonly undesirable in therapeutic programs.

THE FIRST STEROID WITH ANABOLIC SPECIFICITY—Nilevar, the newest Searle Research development, therefore, meets a long desired clinical need because Nilevar presents the first steroid primarily anabolic for protein synthesis. Moreover, Nilevar is without prominent androgenic effects (only about one-sixteenth of that exerted by the androgens).



OBJECTIVE AND SUBJECTIVE RESPONSE — Orally effective, Nilevar therapy is characterized by retention of nitrogen, potassium, phosphorus and other electrolytes in ratios indicative of protein anabolism. Moreover, subjectively the patient observes an increase in appetite and sense of well-being.

WELL TOLERATED—Nilevar has an extremely low toxicity. Laboratory animals fail to show toxic effects after six months of continuous administration of high dosages. Nilevar should not be administered to patients with prostatic carcinoma. Nausea or edema may be encountered infrequently. Slight androgenicity may be evidenced on high dosage or in particularly responsive individuals.

MAJOR INDICATIONS—Preparation for and recovery from surgery; supportive treatment of serious illnesses (pneumonia, poliomyelitis, carcinomatosis, tuberculosis); recovery from severe trauma and burns; decubitus ulcers; care of premature infants.

DOSAGE—The daily *adult* dose is three to five Nilevar tablets (30 to 50 mg.) but up to 100 mg. may be administered. For *children* the average daily dose is 1 to 1.5 mg. per kilogram of body weight; individual dosages depend on need and response to therapy.

SUPPLY—Nilevar is available in uncoated, unscored tablets of 10 mg. G. D. Searle & Co., Research in the Service of Medicine.

*Trademark of G. D. Searle & Co.

SEARLE

ommended the appointment of Charles R. Doyle, M.D., St. Louis, as Editor, beginning January 1, 1956, and the following Committee on Publication: Richard H. Kiene, M.D., Kansas City; C. G. Stauffacher, M.D., Sedalia; R. O. Muether, M.D., St. Louis; Ben M. Bull, M.D., Ironton, with Dr. Doyle as Chairman. The following Editorial Board was appointed: Allen I. Herman, M.D., St. Joseph; Robert K. Skillman, M.D., Kansas City; A. N. Arneson, M.D., St. Louis; J. H. Trolinger, M.D., Jackson; Wilfred E. Wooldridge, M.D., Springfield; Roscoe L. Pullen, M.D., Columbia. These appointments were approved by the Council on December 11, 1955.

W. F. Francka, Chairman,
H. E. Petersen,
R. O. Muether,
W. S. Sewell.

The Speaker asked for a supplementary report from Charles R. Doyle, M.D., St. Louis, Editor.

Charles R. Doyle, M.D., St. Louis: The report is published, as the Speaker has noted. I would like to call to your attention, however, that a new Editorial Board has been appointed consisting of Dr. J. H. Trolinger, Jackson; Dr. Robert K. Skillman, Kansas City; Dr. Allen I. Herman, St. Joseph; Dr. Roscoe L. Pullen, Columbia; Dr. A. N. Arneson, St. Louis, and Dr. Wilfred E. Wooldridge, Springfield. This Board has met and are exerting every effort to obtain good scientific articles for the journal. It is our plan and our hope that everyone, delegates and officers, will make it part of their duties to encourage the men in the societies to submit articles for publication. We are particularly interested in down-to-earth reports, not necessarily unusual cases, but perhaps unusual aspects of common conditions which will be of value to our members, and articles along the line of progress reports. We hope to increase the value of Missouri Medicine to our readers. That is our chief aim and we certainly will welcome any help that any of you can give.

The Speaker referred these reports to the Reference Committee on Reports of Officers.

The report of the Committee on Defense, Charles E. Hyndman, M.D., St. Louis, Chairman, follows:

REPORT OF THE COMMITTEE ON DEFENSE

Cases pending, April 1, 1955	3
New cases during the year	0
Cases settled during the year	0
Cases pending, April 1, 1956	3

C. E. Hyndman, Chairman,
L. P. Forgrave,
James D. Horton,
James H. O'Neil,
Roland S. Kieffer.

The Speaker referred this report to the Reference Committee on Miscellaneous Affairs.

The report of the Committee on Public Policy and Public Relations, Jerome I. Simon, M.D., St. Louis, Chairman, follows:

REPORT OF THE COMMITTEE ON PUBLIC POLICY AND PUBLIC RELATIONS

In the months since the last Annual Session, individual members of the Committee, and its chairman, have taken part in the deliberations of the Council and of the Special Committee on Licensure. No meeting of the Committee as a whole has been held, pending determination of licensure policy that will be made by the House of Delegates in this session.

It will be recalled that the Committee played a key role in the Association's sponsorship of the licensure bill that was introduced in the last session of the General Assembly. From the experience gained in that first, unsuccessful effort, it is believed the Committee will be in a position to work with much greater effectiveness in support of whatever policy is now determined.

Throughout the last year, the chairman of the Committee has maintained constant contact with the Executive Secretary of the Association, and a number of steps have been taken to keep the doctors of Missouri informed of public policy matters affecting the profession and to solicit the expression of their views on proposed national legislation—in particular the proposal for cash disability benefits under Social Security—H. R. 7225.

Round table luncheons furnished discussion periods.

The Association office and public relations agency have sent representatives to national meetings at which A.M.A. public relations policies have been discussed. Reports have been made to the Council, and the views of the Council transmitted to the A.M.A.

Individual members and county societies are invited to contact the Committee relative to questions dealing with public relations.

Jerome I. Simon, Chairman,
T. E. Potter,
T. J. Hoerchler,
R. J. Crider,
J. W. Allee,
Rolla B. Wray,
Ralph Perry,
O. B. Crawford,
H. W. Carrington,
J. J. Bredall,
V. B. Buhler,
Carl F. Vohs,
W. F. Francka.

The Speaker referred this report to the Reference Committee on Reports of Officers.

The report of the Committee on Medical Education and Hospitals, Ralph R. Coffey, M.D., Kansas City, Chairman, follows:

REPORT OF THE COMMITTEE ON MEDICAL EDUCATION AND HOSPITALS

The Committee on Medical Education and Hospitals has had no stated meetings. The chairman has attended two meetings, one with Dr. Pullen in St. Louis with the Council in regard to the finances and budget of the University of Missouri Medical School and Hospital, and a second with Dr. William Sodeman, who graciously substituted for Dr. Pullen, who was out of town, in an inspection of the new medical school and hospital at Columbia. At this time I held a conference with Dr. John Modlin, of Columbia, a member of the Committee, and we discussed some of the problems of the local physicians and their relationship to the new medical school and hospital. Several suggestions were made to Dr. Sodeman which we hoped would help lead to a better understanding between the local doctors and communities surrounding the medical school.

The Committee has been given no further assignments nor has it been asked for further advice and suggestions. Dr. Pullen stated at the Council meeting that he must look to the Board of Curators of the University of Missouri for advice and instruction in regard to the development and maintenance of the medical school and its policies and personnel.

Ralph R. Coffey, Chairman,
W. J. Ferguson,
George J. L. Wulff,
Harry K. Purcell,
John J. Modlin.

The Speaker referred this report to the Reference Committee on Medical Education and Public Welfare.

The report of the Committee on Cancer, Joseph L. Fisher, M.D., St. Joseph, Chairman, follows:

REPORT OF THE COMMITTEE ON CANCER

It has been clearly recognized by the Committee on Cancer that Missouri physicians are in an excellent position to be benefactors to many persons who do not realize that cancer can actually be cured if it is detected early. Physicians are urged again to become active participants in this important work—for through early detection a goal of high cure rate can be realized in this state. As individual physicians, and as an Association, we cannot afford to miss this opportunity to be of further service to the people of Missouri. In a concerted effort to impress this important matter on the public and professional minds the State Association's Committee on Cancer has cooperated with the Missouri Division of the American Cancer Society in developing the program, "Every doctor's office—a cancer detection center."

Panels of speakers answered questions at luncheons.

Now, the program is being accelerated and united action is necessary to make it succeed. The Committee on Cancer has followed a careful conservative course. Only after a thorough investigation of several types of cancer service programs in other states was the "patient history form" and "physical examination form" completed. It has been the Committee's basic goal to make the public aware of the fact "Your Family Doctor is prepared to give you the answer."

The Committee realizes, in order to keep pace with this accelerated program, there must be a more intensive professional education program which must embrace refresher courses, postgraduate courses, cancer conferences and "cancer teaching days," such as the two that have been held in Cape Girardeau sponsored by M.S.M.A., Missouri Division of the American Cancer Society and the Cape Girardeau Medical Society. A similar meeting is being held in Springfield this April.

Through the cooperation of the Missouri Division of the American Cancer Society and the State Health Department, Missouri doctors are now receiving "Ca.," a more scientific and valuable cancer bulletin than has been made available in the past. Numerous bulletins published by the American Cancer Society such as "Cancer Detection in the Physician's Office," "Self Examination of the Breasts," "All About Colostomies" and kinescopic recordings of cancer clinics and seminars have been made available by the Missouri Division of the American Cancer Society. Kinescopes are excellent for hospital staff programs and county medical society programs as well as teaching material for hospital residents and medical students.

The history and physical examination forms which will be distributed by the Missouri Division of the American Cancer Society to lay people, a copy of which has been mailed to all the Association members, have been approved by the House of Delegates of M.S.M.A., and the Council. It is the feeling of the Committee that if every doctor would equip his office to satisfactorily perform the examinations listed on this blank it would mean a much improved relationship between the patient and his local physician. Inquiries have been received by this Committee from all over the state asking, "Where can I go to have a good cancer examination?" The Committee wishes to urge the membership of M.S.M.A. to meet this challenge.

Subcommittees of the Committee are studying the advisability of establishing standard criteria for diagnostic Cancer Clinics in the state.

Another subcommittee is investigating the possibility and advisability of establishing a central tumor registry for the state at large.

The high percentage of "non-cancer" admissions to the Ellis Fischel State Cancer Hospital continues to be a problem. It is the feeling of the committee that as the diagnostic facilities improve on the local level a greater number of these non-cancerous patients will be eliminated from the waiting list for admission to the state cancer hospital. More accurate diagnosis on the local level will eliminate unneeded transporting of indigent patients to and from Ellis Fischel, as well as correspondingly reducing the number of hospital days, thereby lessening the tax burden inflicted by state institutions.

Lay educational programs, especially that of the Missouri Division of the American Cancer Society, their volunteer workers and the Public Health Department continue to acquaint the public with the early signs and symptoms of cancer as well as the advantages of periodic medical examinations. Among lay people this is a continually growing long felt need, and serves as an effective tool with which the education committee of our state and county units can get people to their family physicians.

From the doctor's viewpoint it is believed that it will be of material value, strengthening the traditional patient-doctor relationship and will materially improve medical public relations. The impetus of this stimulus will be for each professional man to improve himself by availing himself of some of the advantages previously mentioned in this report.

By this concerted effort on the part of both lay and professional groups it is the hope of this Committee that the statement now heard far too often, "I went to my doctor and didn't get a good cancer examination," will gradually "fade away."

Joseph L. Fisher, Chairman,
Marvin L. Napper,
Thomas Martin,
E. Kip Robinson,

E. C. Ernst,
George O. Miles,
Frederick J. McCoy,
George A. Carroll,
George L. Watkins,
C. W. Meinershagen,
A. N. Arneson,
Charles E. Lockhart.

The Speaker referred this report to the Reference Committee on Miscellaneous Affairs.

The report of the Committee on Medical Economics, A. P. Rowlette, M.D., Moberly, Chairman, follows:

REPORT OF THE COMMITTEE ON MEDICAL ECONOMICS

The Committee has not held a meeting since the last session of the House of Delegates.

As is customary, the Committee is furnishing information relative to the progress of Blue Cross and Blue Shield plans in Missouri.

Missouri Medical Service (Blue Shield)

Membership, December 31, 1954	376,777
Membership, December 31, 1955	415,730
Reserve per agreement	$9.21
Reserve per participant	$3.90
Number of cases paid	72,965
Amount paid during year	$3,992,442

Kansas City Blue Shield Surgical Medical Care

Membership, December 31, 1954	319,880
Membership, December 31, 1955	408,441
Reserve per agreement	$11.46
Reserve per participant	$4.12
Number of cases paid	156,956
Amount paid during year	$3,891,280.60

Blue Cross—St. Louis Plan

Membership, December 31, 1954	808,904
Membership, December 31, 1955	827,874
Reserve per agreement	$8.87
Reserve per participant	$3.63
Number of cases hospitalized	136,456
Number of days hospitalized	906,467
Average days stay per year	6.6
Amount paid during year	$13,538,737

Kansas City Blue Cross Hospital Service

Membership, December 31, 1954	351,639
Membership, December 31, 1955	447,506
Reserve per agreement	$11.87
Reserve per participant	$4.53
Number of cases hospitalized	70,685
Number of days hospitalization	464,827.5
Average days stay per year	8.0
Amount paid during year	$7,551,783.21

A. P. Rowlette, Chairman,
John R. Forgrave,
Arthur B. Smith,
E. A. Stricker,
Charles R. Doyle,
J. H. Trolinger,
George L. Hawkins.

The Speaker referred this report to the Reference Committee on Resolutions.

The report of the Committee on Maternal Welfare, Joseph L. Johnston, M.D., Springfield, Chairman, follows:

REPORT OF THE COMMITTEE ON MATERNAL WELFARE

The Committee met in Jefferson City, February 12, 1956. In addition, subcommittees in the Eastern and Western sectors of the state have met frequently since the last session of the House of Delegates.

Some sessions broke up slowly.

The Committee, through its subcommittees in St. Louis and Kansas City, has reviewed the causes of maternal deaths in the state through the month of October, 1955. As is customary, the review will be given as a scientific presentation at the Annual Session of the Missouri State Medical Association, St. Louis, April 10. Joseph M. Krebs, M.D., St. Louis, a member of the Committee, will present the report.

It was agreed that a request should be made to the Editorial Board of Missouri Medicine to publish a monthly case report. The report would be entitled, "Maternal Mortality Case Report." The cases will be prepared for publication by the subcommittees in St. Louis and Kansas City.

It was agreed that a request should be made of the Committee on Arrangements to provide a meeting room at the Annual Session in 1956. Because of conflicts in time a previous request for the reestablishment of the annual round table luncheon of the Maternal Welfare Committee had to be denied. However, the Committee is most anxious to establish the custom of an annual luncheon or dinner. If the request is granted, a dinner meeting will be held at the Sheraton-Jefferson Hotel, St. Louis, Monday, April 9, 1956, followed by a round table discussion of the review of maternal deaths in Missouri.

It was agreed that members of the Committee and subcommittees should be available on request of M.S.M.A. to furnish scientific discussions on obstetric problems at county medical society meetings.

It was agreed that an effort should be made to secure a place for a speaker on obstetric problems as part of the program of the Annual Session of the Missouri Hospital Association.

It was agreed that a request should be made to the State Division of Health for a change in the wording of the certificate of death. The change recommended would be a question on the form asking whether the deceased was pregnant at the time of death or during a period of six months prior to death.

It was agreed that a request should be made to the Council to secure legal help in obtaining information about maternal mortality studies in other states. It was reported that legislation has been enacted in at least one state relative to maternal mortality studies.

The Committee for several years has been studying the regulations of various hospital staffs relative to obstetric care. A tentative outline of recommendations for the care of obstetric patients in hospitals was presented. The subcommittee agreed to make further changes in the proposed recommendations. It was then agreed by the Committee that if the proposed recommendations are completed in time, they should be submitted to the House of Delegates at the Annual Session of the Missouri State Medical Association.

Joseph L. Johnston, Chairman,
Helman C. Wasserman,
Gerald L. Miller,
Kenneth E. Cox,

E. E. Wadlow,
Robert W. Smith,
William See,
James E. Keeler,
Joseph M. Krebs,
John E. Burch,
Francis R. Burns,
Dennis B. Elrod.

The Speaker referred this report to the Reference Committee on Reports of Officers.

The report of the Committee on Infant and Child Care, Daniel B. Landau, M.D., Hannibal, Chairman, follows:

REPORT OF THE COMMITTEE ON INFANT AND CHILD CARE

The Committee on Infant and Child Care of the Missouri State Medical Association was active during 1955, principally because of the Salk Poliomyelitis Vaccine Program.

The Committee first met February 27, 1955, with Drs. James R. Amos and E. A. Belden, of the Division of Health of Missouri, to make recommendations to the State Association relative to the mass immunization program. These recommendations were approved by the Council.

Because of the unfortunate results in some areas following the administration of the first doses of the poliomyelitis vaccine, a special meeting was held on June 19, 1955, to suggest modifications of the original program to insure maximum safety to the children of Missouri. These recommendations also were approved by the Council.

The Committee met again on September 11, 1955, to cooperate with the Division of Health in order to stimulate the Poliomyelitis Vaccination Program as the vaccine's safety was assured, and as the vaccine supply was expected to become more plentiful.

It was emphasized that the vaccine should be administered principally by private practitioners, but that steps should be taken for the establishment of public clinics so that no Missouri child need go without the vaccine. These recommendations were also approved by the Council.

Visiting exhibits usually included other visiting.

The Committee at its meeting on February 27, 1955, recommended to the Missouri Division of Health that ointment containing 100,000 units of penicillin per gram with expiration date observed, or erythromycin ophthalmic ointment with expiration date observed, be permitted in lieu of silver nitrate solution in the eyes of the newborn infant on request of the medical staff of the hospital to the State Division of Health. These recommendations were also approved by the Committee on Maternal Welfare.

Two members of the Committee, Dr. Guy Magness and Dr. Daniel B. Landau, and Mr. Raymond McIntyre, of the Missouri State Medical Association Executive Office, attended the Fifth Conference of Physicians and Schools at Highland Park, Illinois, sponsored by the American Medical Association, October 12, 13 and 14, 1955. Dr. Guy Magness was a leader of one of the principal discussion groups, "Home-School Cooperation," and received much favorable comment for his guidance of this discussion group.

Daniel B. Landau, Chairman,
H. Ewing Wachter,
Raymond J. LaDriere,
Guy N. Magness,
Jack N. Wiles,
John S. Sennott,
O. B. Barger,
Roy F. Garrison,
Eugene J. Schwartz,
W. E. Henrickson.

The Speaker referred this report to the Reference Committee on Miscellaneous Affairs.

The report of the Committee on Health and Public Instruction, A. W. McAlester, III, M.D., Kansas City, Chairman, follows:

REPORT OF THE COMMITTEE ON HEALTH AND PUBLIC INSTRUCTION

The Committee is pleased to report an increasing activity and, particularly, during this last year, on the part of county medical societies in sponsoring joint meetings with other professional groups. Special programs of broad interest have been arranged in conjunction with appropriate social festivities at these meetings. The joint sessions have included meetings with lawyers, dentists, pharmacists, undertakers, hospital personnel, representatives of drug companies, office secretaries and assistants and Woman's Auxiliaries to the medical societies. In some instances, medical society members have invited lay friends as their guests to some special meeting of the society. This type of medical society activity has fine public relations, as well as health education, promotional values.

The Committee recommends consideration of this or similar activity to all county medical societies in the state.

Many of the Woman's Auxiliaries of county medical societies in Missouri are sponsoring health forums open to the public. They are also holding health day teas and luncheons for invited guests. Speakers and programs for a good number of these occasions have been furnished, by request, through the auspices of this Committee. The Committee commends the Auxiliaries for these effective efforts in lay health education.

Some of the county medical societies, or their Auxiliaries, are sponsoring regularly scheduled broadcasts of health education programs over local radio stations. The Committee recommends more activity of this nature with an approach to television programs wherever feasible. Good health education scripts and films, for local radio and television use, are available on loan to medical societies from the Bureau of Health Education of the American Medical Association.

For a number of years, the Committee on Health and Public Instruction has presented an educational exhibit at the Missouri State Fair in Sedalia. The 1955 State Fair exhibit was borrowed from the Bureau of Scientific Exhibits of the American Medical Association and was entitled "You and Your Body." This was an interesting and informative display showing in true-to-life manikins, the location, size and appearance in three-dimensional form the organs of the human body exclusive of the extremities. Two life-size manikins were used to show where such organs as the lungs, the heart, the diaphragm, stomach, intestines and other organs are located.

Visitors to the exhibit were able to obtain additional

The Woman's Auxiliary had officers of the Association as guests.

information on each of the organs by pressing buttons which explained the purpose, function and nature of sixteen of the body's organs. More than 500,000 people attended the 1955 Fair and a good number of them visited the exhibit. The Committee feels that state and county fairs offer unique opportunities for disseminating health education information.

County Medical Societies and their Auxiliaries may well give careful consideration to local fair opportunities for reaching large segments of their public with good health promotion material.

A. W. McAlester, III, Chairman,
J. Earl Smith,
Edgar A. Belden,
Henry C. Willumsen,
John T. Crowe.

The Speaker referred this report to the Reference Committee on Medical Education and Public Welfare.

The report of the Committee on Constitution and By-laws, Curtis H. Lohr, M.D., St. Louis, Chairman, follows:

REPORT OF THE COMMITTEE ON CONSTITUTION AND BY-LAWS

The following proposed amendments were approved by the Council and are presented to the House of Delegates by this Committee:

Amend Chapter VII, Sec. 2, page 13, by adding immediately after "A Committee on Laboratory Medicine" the following: "A Committee on Civil Defense" so that the section will read: "Sec. 2. The standing committees, unless otherwise provided in these By-laws, shall consist of five members serving three year terms shall be: "A Committee on Scientific and Postgraduate Work. . . ."

Amend Chapter VII, Sec. 2, page 15, immediately prior to Sec. 3 on the same page, by inserting the following: "The Committee on Civil Defense shall consist of ten members of the Association, appointed annually by the President, one from each of the ten Councilor Districts and, in addition, any other members who are interested in the medical aspects of Civil Defense; the Committee shall concern itself with the development of Civil Defense operations in the state and shall cooperate with public officials and private organizations in the furtherance of Medical Civil Defense activities."

Curtis H. Lohr, Chairman,
W. L. Allee,
P. W. Jennings,
W. A. Bloom,
H. M. Parker.

The Speaker referred this report to the Reference Committee on Amendments to the Constitution and By-laws.

The report of the Committee on Fractures, Paul W. Meyer, M.D., Kansas City, Chairman, follows:

REPORT OF THE COMMITTEE ON FRACTURES

A meeting of the Committee was held April 15, 1955, and a report was received at that time of a meeting of a subcommittee with a small committee of the Missouri Association of Chiropodists. The meeting was held at the time of the Annual Session of the Association in 1955.

This was a most harmonious meeting which resulted in better understanding by both groups of mutual problems. It was recommended that a similar meeting of the two groups be held in St. Louis in 1956 at the time of the Missouri State Medical Association's Annual Session. Arrangements are being completed to hold such a meeting.

Paul W. Meyer, Chairman,
William H. Snead,
Jacob Kulowski,
W. J. Stewart,
Vilray P. Blair,
Henry C. Bauman,
B. L. Murphy,
Thomas G. Otto,
Ralph K. Earp,
Frank D. Sundstrom,
O. P. Hampton.

The Speaker referred this report to the Reference Committee on Miscellaneous Affairs.

The report of the Committee on Conservation of Eyesight, Theodore Sanders, M.D., St. Louis, acting Chairman, follows:

REPORT OF THE COMMITTEE ON CONSERVATION OF EYESIGHT

The Committee met on December 1 in St. Louis. Inclement weather caused the absence of several members. As a result the Committee was unable to act upon several items on the agenda.

The Council referred to the Committee a letter which was received from the Missouri Optometric Association requesting a meeting with representatives of the Association. The purpose of the meeting would be to discuss legislation in Missouri dealing with optometry as well as resolutions adopted at the national level relative to eye care. Those present agreed to advise the Council that members of the Committee were willing to meet with the optometrists.

A special subcommittee has been appointed by the Council composed of members of this Committee and members of the Council to meet with the representatives of the Missouri Optometric Association.

The Trachoma Hospital at Rolla was discussed briefly. It was agreed to consider information regarding the hospital at a later time when representatives of the State Division of Health could be present.

Theodore Sanders, Acting Chairman,
A. N. Lemoine,
Robert S. Minton,
W. J. Marshall,
Harry B. Stauffer,
John McLeod,
Paul G. Wolff,
Michael F. Pernoud,
D. E. Eggleston,
Horace E. Allen,
William B. Wilcoxen,
W. L. Post.

The Speaker referred this report to the Reference Committee on Miscellaneous Affairs.

the point is this...

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References: 1. Hollander, J. L., *Ann. New York Acad. Sc.* **61**:511, May 27, 1955.
2. Hollander, J. L., *et al.* *J.A.M.A.* **158**:476, June 11, 1955.

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The report of the Committee on Venereal Disease, E. M. Cannon, M.D., St. Louis, Chairman, follows:

REPORT OF THE COMMITTEE ON CONTROL OF VENEREAL DISEASE

The Committee on Control of Venereal Disease met in Jefferson City at the Missouri Hotel on January 18, 1956. The following were present: Drs. A. W. Neilson, E. M. Cannon, St. Louis; Dr. E. A. Belden, Mr. William Shaw of the State Division of Health, Jefferson City; and Mr. T. R. O'Brien, Executive Secretary, Missouri State Medical Association, St. Louis.

Due to inclement weather, as well as the illness of Dr. Charles C. Dennie, Kansas City, a quorum of the committee was not present. As a result, it was decided to proceed with the items on the agenda and to send by mail the minutes of the meeting to the absent members for their approval so that the report of the Committee may be published. The minutes were approved by mail and the following report is submitted.

The chairman reviewed the action taken by the Committee on Control of Venereal Disease in 1955. A joint meeting of Committees on Control of Venereal Disease and Laboratory Medicine was held in January, 1955, and the Committee on Laboratory Medicine recommended that all private and hospital laboratories report all positive serologic tests and other tests indicating a venereal disease by patient's name to the private physicians on a detachable card form. One card would be the physician's confidential venereal disease morbidity report which he would forward to the Division of Health. On the third card of the three-part detachable form the laboratory would also forward the report of test or tests without patient's name and labeled by laboratory number only to the local health department, and thus the Division of Health would have a check on the physician's morbidity reporting.

During the last year the Committee on Laboratory Medicine and the State Division of Health formulated the new reporting form as described. This form, approved at a meeting of Laboratory Medicine, was approved by those present.

The implementation of advising physicians and laboratories of the new form was discussed. It was agreed by those present that a letter should be sent by the Missouri State Medical Association to county medical societies explaining the new method of reporting. This letter with a copy of the new reporting card is to be sent out under the auspices of the Committee on Control of Venereal Disease and the Committee on Laboratory Medicine. The State Division of Health will contact local health departments in order to have close liaison with private and hospital laboratories.

Dr. E. A. Belden of the State Division of Health presented statistics showing a marked continued decline in primary and secondary syphilis. In 1950 there were 753 cases of primary and secondary syphilis, 106 cases in 1954 and 74 cases in 1955. Cases of congenital syphilis increased slightly from 126 to 146. There was an increase in total syphilis from 2,990 to 4,387 cases and this is thought to be due to mass serologic testing by the St. Louis Health Department. Cases of gonorrhea increased from 3,577 to 5,281.

The Division of Health reported that the fee for service to physicians who treat indigent venereal disease patients is being continued only for cases of gonorrhea, primary and secondary syphilis. Statistics show a reduction in the expenditure of federal funds for fee for service. The amount paid in the fiscal year 1955 was $2,065.00 as compared to $6,275.00 in 1954. During the calendar year 1955, 245 cases of gonorrhea and 18 cases of syphilis were treated.

Dr. E. A. Belden presented a suggested schedule of treatment of syphilis. It was agreed by the Committee that Dr. Belden submit his suggestions in a paper for publication in Missouri Medicine, "Syphilis—a New Schedule for Treatment, Post-Treatment Observations, and Indications for Re-Treatment."

Dr. A. W. Neilson again emphasized the fact that venereal disease is still with us and that educational programs must continue.

Dr. Charles C. Dennie's article, "What About Syphilis" was published in the October, 1955, issue of Missouri Medicine.

The Committee wishes to thank the Committee on Laboratory Medicine, Mr. T. R. O'Brien, Executive Secretary of the Missouri State Medical Association, Dr. E. A. Belden, Mr. John Hove, and Mr. William Shaw of the State Division of Health for their wholehearted cooperation and assistance.

E. M. Cannon, Chairman,
A. W. Neilson,
William B. O'Connor,
James C. Cope,
Charles C. Dennie,
R. J. Murphy,
Edwin M. Powell.

The Speaker referred this report to the Reference Committee on Miscellaneous Affairs.

The report of the Committee on Industrial Health, H. M. Roebber, M.D., Bonne Terre, Chairman, follows:

REPORT OF THE COMMITTEE ON INDUSTRIAL HEALTH

The Committee has met twice since the last session of the House of Delegates.

The Committee considered and offered suggestions and recommendations on the following:

1. An award is issued annually by the President's Committee on "Employment of the Physically Handicapped." The award, in the form of a scroll, is given annually to a physician "for outstanding contribution to the employment of the physically handicapped of our country," and it is signed by the President of the United States.

The Committee agreed not to submit a name from Missouri during 1955. However, efforts are being made to obtain information from various rehabilitation agencies and county medical societies regarding physicians who have shown interest in programs of this type.

2. The new federal Act requiring all employers, including physicians, who employ four or more persons to file returns and pay taxes to the state and federal governments was considered.

An editorial was published in Missouri Medicine, February, 1956, pages 122 and 123, entitled, "Unemployment Compensation Law—1956." This editorial explains the purpose of the act and outlines procedures which physicians must follow in case they employ four or more persons. It is recommended that all members carefully read this editorial and procure the necessary reporting forms in the event they are subject to this law.

3. A letter and questionnaire was received from the Council on Industrial Health of the A.M.A. inquiring as to the need for a handbook on Workmen's Compensation practices.

The Chairman of this Committee authorized a reply in the affirmative and the questionnaire was returned. This resulted in the publication of a booklet entitled, "A Suggested Guide for the Development of a State Workmen's Compensation Handbook for Physicians." The suggested guide is being studied by the Committee. As soon as possible the Committee will make recommendations as to the use of this material in our state.

The Committee is studying a booklet entitled, "Some Monetary Aspects of Workmen's Compensation." The booklet was prepared by the A.M.A. Council on Industrial Health.

A pamphlet prepared by the Council on Industrial Health, "Guiding Principles and Procedures for Industrial Nurses, Revised" was reviewed by the Committee. The pamphlet is available on request.

The Chairman attended the annual meeting of the Council on Industrial Health of the A.M.A. in Detroit, January 23, 24, 1956.

H. M. Roebber, Chairman,
Vencel W. Hollo,
William H. Duncan,
Albert H. Muench,
S. W. Scorse,
Douglas A. Ries.

The Speaker referred this report to the Reference Committee on Miscellaneous Affairs.

The report of the Committee on Diabetes, Henry E. Oppenheimer, M.D., St. Louis, Chairman, follows:

REPORT OF THE COMMITTEE ON DIABETES

The Committee on Diabetes met in Kansas City on March 28, 1955, Dr. William H. Olmsted, Chairman, presiding. Others in attendance were Drs. Ide, Layton, Lamke, Lemmon and Oppenheimer. It was proposed by Dr. Olmsted that a one day's program on "Diabetes" be held every three years, just preceding the annual session of the Association. In this way the proposed program would alternate between Kansas City and St. Louis and would have the further advantage that it could be administered by the Kansas City and St. Louis Clinical Diabetes Societies respectively, in conjunction with the Missouri State organization. This proposal was discussed pro and con, and it was finally decided that a program such as that outlined was premature. The proposal was tabled and in its place temporarily was recommended that at least one article per year be submitted for publication in Missouri Medicine.

Round table luncheons were held on Monday and Tuesday.

The Board of Governors of the American Diabetes Association was discussed briefly, as Dr. Oppenheimer is its Governor of Missouri. The need for greater interest in diabetes throughout the state was mentioned, particularly in such things as diabetes detection and camps for diabetic children. The meeting was then adjourned.

There has been no specific need for a meeting of the Committee since that time. However, various accomplishments have occurred throughout the state.

The fourth annual prostgraduate course of the American Diabetes Association in Dallas, Texas, in January 1956, was publicized by a letter sent to each internist in the State of Missouri. Each general hospital was sent a large poster for the same course and the members of the St. Louis Clinical Diabetes Society were sent brochures.

A diabetes detection program, organized by a heterogeneous group in Kirksville, was given suggestions and help in the proper way to conduct a drive.

Excellent camps for diabetic children were again conducted in Kansas City and St. Louis, under the auspices of the respective diabetes associations.

Diabetes Detection Campaigns were again held in both Kansas City and St. Louis. The latter especially is noteworthy, as it is the closest approach to a year-round program that has ever been attempted and among other groups included many industries in detection as well as a large number of industrial workers.

Speeches on "Diabetes" by well known persons within the state include Dr. William Kirtley, of Eli Lilly Company, who gave talks to the St. Louis Diabetes Association and the St. Louis Clinical Diabetes Society in April, 1955, and Dr. Alexander Marble of the Joslin Clinic, who spoke to the Kansas City Diabetes Society on April 7, 1956. Papers by Missourians on the subject include the following: Dr. Carl Cori, who gave the Banting Memorial Lecture at the American Diabetes Association meeting in June 1955 in Atlantic City. Dr. Cori was honored on this occasion by being the recipient of the Banting Medal, the highest honor bestowed by the Association. Dr. Robert Jackson and Dr. W. Stanley Hartroft spoke at the Dallas Postgraduate Course. Dr. William H. Olmsted spoke in Iowa City at a monthly scientific meeting. Dr. Harold K. Roberts and Dr. Jackson both presented papers at the regional meeting of the American College of Physicians in Columbia in February 1956.

Grants in Diabetes have been made by the Section on Arthritis and Metabolism of the U.S.P.H.S. in the last year to St. Louis University School of Medicine and Washington University School of Medicine.

Just recently there has been a reactivation of the Kansas City Clinical Diabetes Society. This was accomplished by a meeting of some of the interested physicians in Kansas City with the Governor of the state at the American Diabetes Association.

Henry E. Oppenheimer, Chairman,
J. Bruce Lemmon,
Robert H. Hodge,
Charles M. Lamke,
Lucien W. Ide,
Vincent J. LoPiccolo,
Robert E. Koch,
Ralph R. Jones,
Byron M. Stuart,
William H. Olmsted.

The Speaker referred this report to the Reference Committee on Miscellaneous Affairs.

The report of the Committee on Anesthesiology, Joseph A. McNearney, M.D., Chairman, was presented by W. W. Tillman, M.D., Springfield.

REPORT OF THE COMMITTEE ON ANESTHESIA

The Committee has had no formal meeting during the last year. However, various members of the Committee have participated in activities of interest to the anesthesiologists in the State of Missouri.

Members of the Committee have met with representatives of Missouri Medical Service in an attempt to establish a satisfactory fee schedule for a comprehensive service policy. After several meetings, this schedule was approved, only to have Missouri Hospital Service refuse to cooperate with Missouri Medical Service in the proposed payment for so-called "ancillary" services.

Under the leadership of Dr. Carl Ness of St. Joseph, six programs on "Anesthesia" were presented to various County Medical Societies throughout the State. A speaker service for County Medical Meetings will be continued. Efforts will be made to organize a postgraduate course in "Anesthesia" at the University of Missouri. A listing of residencies and postgraduate training facilities in Missouri is now available for those doctors interested in such training.

Joseph A. McNearney, Chairman,
O. T. Blanke,
Merritt H. Kimball,
Carl K. Ness,
W. W. Tillman,
Seymour Brown.

The Speaker referred this report to the Reference Committee on Reports of Officers.

The report of the Committee on Hospital and Professional Relations, Hollis Allen, M.D., St. Louis, Chairman, follows:

REPORT OF THE COMMITTEE ON HOSPITAL AND PROFESSIONAL RELATIONS

Again, as in previous years, the principal function of the Committee has been to represent the Association as one of the three groups which make up the "Missouri Conference on Improvement of Care of the Patient." The other two groups are the Missouri Hospital Association and the Missouri State Nursing Association.

The Missouri Conference on Improvement of Care of the Patient met four times during 1955, on Jan. 10, March 11, May 23 and Oct. 3. The Chairman during 1955 was Hollis Allen, M.D., representing M.S.M.A.

Among items considered by the Committee were: The revised Medical Practice Act proposed by M.S.M.A.; the Missouri Hospital Licensing law adopted by the legislature in 1953; standards of the Missouri Association of Licensed Nursing Homes; duties of practical nurses and new identification emblems for registered and practical nurses. All of these subjects were discussed thoroughly on more than one occasion. In addition to those items, the Conference has explored the problem of chronic illness.

Chronic illness is becoming a much greater problem because of the increasing age of the population. About 4 per cent of the total population was 65 years of age or older in 1900, and that has increased to 8 per cent in 1955. It is estimated that 12 per cent of the total population will be in this age bracket by 1980. The medical, nursing and hospital groups, as a result, should take the lead in an educational effort not only to educate their own members but also to awaken public interest in this growing problem.

A special committee of the Conference composed of Stanley S. Peterson, M.D., as chairman; Mr. Herbert Wright, representing the hospitals, and Miss Nell Morgan, R.N., will report to the Conference after studying the need for further assistance in the field of chronic illness.

Hollis N. Allen, Chairman,
Stanley S. Peterson,
C. M. Waggoner,
Paul M. Johnstone,
Milton Shoss.

The Speaker referred this report to the Reference Committee on Medical Education and Public Welfare.

The report of the Committee on Laboratory Medicine, B. C. Portuondo, M.D., St. Louis, Chairman, follows:

REPORT OF THE COMMITTEE ON LABORATORY MEDICINE

The Committee on Laboratory Medicine of the Missouri State Medical Association met in Jefferson City at the Missouri Hotel on Wednesday, September 1, 1955 with all members present. Mrs. Irma C. Adams and Dr. E. A. Belden, of the Division of Health, State of Missouri, were also present.

Dr. Belden presented the revised edition of the Venereal Disease Report Form for the laboratory reporting of positive tests for venereal disease. This form had been approved in principle by both the Committee on Laboratory Medicine and the Committee on Control of Venereal Disease at previous meetings and by the House of Delegates of the M.S.M.A. in March 1955. The revised form was approved unanimously and will be submitted to the Committee on Control of Venereal Disease for final approval.

Mrs. Adams brought up the subject of the approval of hospital laboratories under the Hospital Licensing Law. After a thorough discussion it was agreed that the preliminary survey would be made by the Division of Health Laboratory Inspectors in connection with the present serology evaluation program. A form for this survey was submitted by Mrs. Adams and was approved. If any gross deficiencies were found in the preliminary survey and these were not corrected, the Division of Health would request the M.S.M.A. for an inspection by one or more members of the Committee on Laboratory Medicine or someone designated by the chairman of that Committee. Before a hospital laboratory would be disapproved by the Division of Health the findings would be reviewed by the Committee on Laboratory Medicine.

Mrs. Adams reported on a workshop she had attended in Georgia given by the U. S. Public Health on Laboratory Work in Civil Defense. She stated the U. S. Public Health would be willing to furnish speakers for the various states to conduct such a program within the state. It was recommended by the Committee that the matter be referred to the Missouri Society of Pathologists as a topic for the spring meeting.

Dr. Lapi discussed the needs for forming a State Blood Bank Association in order to facilitate the transfer of blood from one bank to another within the state and for cooperation with the North Central Clearing House of the American Association of Blood Banks. The Committee approved in principle both the formation of the State Blood Bank Association and the North Central Clearing House. Dr. Lapi was instructed by the Committee to gather more information and to ask the M.S.M.A. to request the Missouri Hospital Association to appoint a committee to work with this Committee in organizing such an association.

B. C. Portuondo, Chairman,
Angelo Lapi,
Hilliard Cohen,
Richard V. Riddell,
Henry C. Allen.

The Speaker referred this report to the Council.

The report of the Committee on Physical Medicine and Rehabilitation, D. Elliott O'Reilly, M.D., St. Louis, Chairman, follows:

REPORT OF THE COMMITTEE ON PHYSICAL MEDICINE AND REHABILITATION

The report of this Committee submitted to the 1955 session of the House of Delegates contained a recommendation that the Professional Advisory Committee to the Vocational Rehabilitation Division of the State Department of Education be reactivated. This recommendation was adopted by the Board of Education and the following members of M.S.M.A. were appointed to serve as the Advisory Committee: Drs. Eric Cunningham, Louisiana; Henry Guhleman, Jefferson City; Virgil Jeans, Joplin; Richard Kiene, Kansas City; Glen McElroy, Columbia; B. L. Murphy, Hannibal; John C. Murphy, St. Louis; Hubert Parker, Kansas City; Harold Ridings, Cape Girardeau; C. Souter Smith, Springfield; Richard Sutter, St. Louis; Glenn Tygett, Cape Girardeau.

The following explanatory letter was sent to all new members of the Advisory Committee on June 7, prior to the initial meeting of that group called for June 12:

"The Committee on Physical Medicine of the Missouri State Medical Association has been interested in the Section on Vocational Rehabilitation of the State Department of Education. This agency, as you may know, is responsible for the procedures relating to the physically handicapped in Missouri, including medical examinations, treatments and vocational rehabilitation. The agency was established in Missouri in 1943 and provided for the establishment of a professional advisory committee, and the plan states that the Supervisor of Physical Restoration 'secures advice of the professional advisory committee regarding general policies, standards and administrative procedures; keeps the committee currently informed on developments in physical restoration; secures the cooperation of the committee in interpreting program policies and procedures to professional and lay groups throughout the state.'

"House Bill 202, recently passed in the present session of the legislature, provides that the state department of education shall be the state agency in Missouri which shall handle the 'disability freeze' provision of the social security act. The 'disability freeze' act, adopted by the Congress of the United States in 1954, provides that disabled workers shall have their social security coverage continued while disabled. It is similar to waiver of premium clauses in life insurance contracts whereby premiums are waived if the insured is disabled for six months or longer.

"The professional advisory committee has not functioned for several years. The Missouri State Medical Association Committee on Physical Medicine studied the situation and recommended that the committee be reactivated. As a result, you and other members of the Association have been appointed to serve as members of the professional advisory committee. You have been advised of a meeting to be held June 12. It is our hope that regular meeting dates will be established and that an outline of duties and responsibilities for the committee will be presented at the meeting. The appropriation of the state and federal governments for rehabilitation and for the disability freeze program will exceed one million dollars during the biennium, beginning July 1, 1955. It is anticipated that this amount will increase in the future.

Morning speakers served as a panel at the luncheon.

"The Committee on Physical Medicine is most anxious to see that these programs are administered in a manner that will not only result in the best possible care for the patients, but also will adequately safeguard the rights of the profession. Therefore, the professional advisory committee, of which you are a member, will play a most important role in this objective. If the committee or the Association office may be of help, please get in touch with us."

It was recommended that the vacant positions as medical consultants be filled and Dr. L. V. Mulligan was appointed district medical consultant for St. Louis.

The Chairman of this Committee was asked to serve on a three member advisory committee to assist the Director of Health in the establishment of regulations relative to rehabilitation facilities for the Missouri Hospital plans. The committee met on October 21, at which time the present rehabilitation facilities were reviewed and future needs were discussed. The Hill Burton law, Public Law 725 and later revisions contained in Public Law 482 provide grants for the construction of hospitals and related facilities. One of the related facilities in 1955 is for Rehabilitation. The sum of $164,252 was awarded to Missouri for the 1955 fiscal year for rehabilitation facilities. Since this is a new phase of the Hill Burton law it was necessary to establish regulations for the use of these funds prior to the time any funds were expended. The Chairman and others assisted in the development of the regulations which were approved by the State Hospital Advisory Board in November 1955.

The Committee will continue to examine with care and to report on all matters referred to it which are concerned with Physical Medicine and Rehabilitation.

D. Elliott O'Reilly, Chairman,
Edward D. Campbell,
Herbert A. Hamel,
Horace E. Thomas,
Luke A. Knese.

The Speaker referred this report to the Reference Committee on Medical Education and Public Welfare.

The report of the Committee on Tuberculosis, Paul Murphy, M.D., St. Louis, Chairman, follows:

REPORT OF THE COMMITTEE ON TUBERCULOSIS

The major project during the last year with which this Committee has been concerned has been the development of "A Guide to Group Tuberculin Testing." Because of the increasing interest in mass tuberculosis survey programs, particularly by lay groups such as the local tuberculosis societies, there seems to be a definite need for developing a pamphlet or guide to be known as, "A Guide to Group Tuberculin Testing." This guide can be sent to those groups making inquiries on how to go about instigating projects on tuberculin testing in various counties over the state. With this in mind, a smaller committee, composed of representatives of this Committee, the Case Finding Committee of the Missouri Tuberculosis Association and the Bureau of Communicable Diseases of the Missouri Division of Health, was appointed and charged with developing a suggested guide.

On November 6, 1955, a joint meeting of the State Association Committee with the Case Finding Committee of the Missouri Tuberculosis Association and the Bureau of Communicable Diseases of the Missouri Division of Health was held in Jefferson City to receive and consider the suggested guide, which had been developed by the special committee previously mentioned herein.

A number of suggestions were made for incorporation in the proposed guide with the following motions made and passed: (1) "That the guide be approved in principle by the joint committees for lay groups, with further editing as suggested to be effected, and the revised guide then to be mailed to individual members of the joint committees for final approval." (2) "It is suggested that all positive tuberculin reactors be x-rayed annually and this be so stated in the revised guide." (3) "It is suggested that the technic of tuberculin testing follow the 1955 edition of 'Diagnostic Standards of the National Tuberculosis Association,' and that this be so stated in the revised guide."

It was the opinion of the Committee and the other two groups that the guide, when revised in conformity with the motions herein stated, along with additional suggested changes of wording here and there throughout the guide, will serve not only as a guide to the lay groups promoting tuberculin testing surveys in Missouri, but will also give valuable information to professional personnel who will be involved in such projects.

In due time following the meeting on November 6, the special committee revised the guide as suggested and sent a copy to all members of this Committee and to the others working on the project. Unanimous approval has now been given the guide, and it is ready to fulfill its intended purpose.

Copies of this pamphlet which is titled "A Guide to Group Tuberculin Testing" may be secured from the Bureau of Communicable Disease, Missouri Division of Health, Missouri Tuberculosis Association, St. Louis, Missouri, and the headquarters office of the Missouri State Medical Association.

Paul Murphy, Chairman,
I. J. Flance,
E. E. Glenn,
Lawrence E. Wood,
J. L. Mudd,
C. A. Brasher,
Walter C. Gray,
F. E. MacInnis,
H. L. Greene.

The Speaker referred this report to the Reference Committee on Miscellaneous Affairs.

The report of the Committee on Study of Cardiac Disease, E. Lee Shrader, M.D., St. Louis, Chairman, follows:

REPORT OF THE COMMITTEE ON STUDY OF CARDIAC DISEASE

The Committee met in Kansas City, March 27, 1955, at the time of the 1955 Annual Session.

The Committee noted the death of Dr. H. W. Carle, a member of this Committee, and the chairman was authorized to write a note to Dr. Carle's widow expressing our sympathy.

The minutes of the previous meeting and supplementary report to the Council were approved by the Committee.

Dr. James G. Janney, Jr., presented a program for a course in postgraduate study of "Cardiovascular Auscultation" at St. Louis University. The program was outlined in detail and each Committee member had a copy for his information. After some discussion the Committee unanimously voted to recommend to the Council that the Missouri State Medical Association approve Dr. Janney's course. Such a Resolution was drafted and sent to the Council.

All scientific sessions were well attended.

Drs. Janney, McIntire and Mr. Green reported on the results of the combined meetings of the Missouri Heart Association and the Committee for Professional Education of the State Health Department. At these meetings there had been held two different types of sessions, one for the medical profession and one for lay education. The first of these meetings was held at Joplin and the second at Hannibal. It was the consensus of the reporters that the meetings had been most gratifying. The Committee took no direct action but it was the general feeling of all present that this type of combined professional and lay educational meetings should be continued and encouraged by both the Health Department and the State of Missouri and the Missouri Heart Association.

There was considerable discussion in regard to the "Heart Bulletin" versus "Modern Concepts of Cardiovascular Disease" as educational media for the medical profession of the State of Missouri. The Missouri Heart Association has been aware of the Committee chairman's hostility towards the "Heart Bulletin," and has kept records from the various physicians throughout the state as to their desires in reference to these two publications. It would seem from Mr. Green's figures that the "Modern Concepts of Cardiovascular Disease" are progressively gaining favor with the practitioners of the State of Missouri. No definite action was taken, but it seemed to be the general consensus of opinion that the Missouri Heart Association should continue to evaluate the opinions of the various doctors receiving the two publications.

Mr. Green called to the attention of the Committee a bill in the Missouri State Legislature to amend the Workman's Compensation Act known as H.B. 183. After some discussion and the presentation of the opinion of a lawyer by Mr. Green, it was unanimously voted to present a resolution to the Council of the Missouri State Medical Association condemning this legislation and requesting that they should take appropriate action.

There was considerable discussion in regard to rheumatic fever as a public health problem. It was felt that the Committee should in some way endorse some type of program for the State Division of Health to form into a working program for the State of Missouri. The general consensus of opinion was that we should secure further information from a variety of sources, such as the Colorado Health Department (to be secured by Dr. Meinershagen), any program which might be available for the State of Texas (from Dr. James B. Stubbs and Dr. George Herman by Dr. Shrader), from the Republic of Mexico by Dr. McIntire and the report of Dr. Goldring to the Regional Association of Public Health Officers of the State of Missouri. It was hoped from these various sources, information would be gained from which it might be possible to work out some type of recommendation to the Health Department of the State of Missouri for a rheumatic fever program.

E. Lee Shrader, Chairman,
Earl L. Loyd,
V. Bryce Ballard,
E. J. McIntire,
A. M. Estes,
W. I. Park,
William A. Sodeman,
G. R. Hudson,
Robert Paine.

The Speaker referred this report to the Reference Committee on Miscellaneous Affairs.

The report of the Committee on Alcoholism, Ralph E. Duncan, M.D., Kansas City, Chairman, follows:

REPORT OF THE COMMITTEE ON ALCOHOLISM

All members of the Committee met during the 1955 Annual Session of the Association, at Kansas City, and adopted the following action program:

1. Continue to explore the problem of alcohol in Missouri.
2. Promote the formation of local committees on alcoholism in each county.
3. Stimulate the work of the already established committees.
4. Distribute copies of "Alcoholism in Missouri" to secretaries of county medical societies, hospitals, all state medical offices, medical college libraries in Missouri and Kansas; public libraries, Committee on Alcoholism A.M.A., officers and counselors of A.M.A., judges, clergy, schools, representatives of industries, departments of education. Also, request information as to their reaction to "Alcoholism in Missouri."
5. Assemble findings and publish them in a supplement or a revised edition.

The Committee accomplished the following since April 1, 1955:

Completed distribution of the Committee report, "Alcoholism in Missouri—1955 edition" to persons and places as indicated in item 4. Committees and commissions located in seven states ordered multiple copies of the report and submitted official requisitions to cover cost; however, no charge was made. Copies were also requested and sent to Bolivia, S.A., Switzerland and Canada. In the 1955 edition, "An Inventory of Social and Economic Research in Health" published by the Health Information Foundation, the report is listed in Section A, "Studies Related to Health Levels."

An exhibit, "Alcoholism in Kansas City 10 County Area" was prepared and shown at the 1955 Fall Clinical Conference of the Kansas City Southwest Clinical Society. This exhibit was awarded honorable mention by a committee whose members were distinguished guests at the conference. Another exhibit on the problem, including a map of the United States indicating types of State Alcoholism Programs, was prepared and shown at the annual meeting of the American Public Health Association held in Kansas City, November 14-18, 1955. This exhibit received considerable attention in spite of the fact that the State of Pennsylvania and the Licensed Beverage Industries had excellent exhibits at the same meeting. This later exhibit was shown as sponsored by the Committee on Alcoholism of Jackson County Medical Society.

Joseph B. Kendis has spent considerable time in St. Louis in promoting the activities associated with the Committee for Education on Alcoholism of Greater St. Louis.

George Forman, Kenneth Coffelt, Stephen D. Smith and Ralph E. Duncan have spent considerable time in educational work, addressing various groups such as civic clubs, Alcoholics Anonymous, schools of nursing, churches, YMCA, Health Department forums. All groups addressed requested the speakers. Clubs, churches and other groups were located in Boone, Buchanan, Clay, Greene, Jackson, Pettis and St. Louis counties.

The Committee on Alcoholism for Jackson County Medical Society in cooperation with The Ralph Foundation for Medical Research presented Selden D. Bacon, Ph.D., Director of the Yale Center of Alcohol Studies, to a group of civic minded citizens of Kansas City ten county area and the Kansas City Industrial Medical Association. Dr. Bacon's subject for the civic group was "Community Action on the Problem of Alcoholism" and his subject to the medical group was "Alcoholism, Its Significance in Industrial Medicine." Both meetings were well attended.

The Committee has been in contact with the Division of Education for the State of Missouri and made suggestions for establishing a teaching unit on alcohol education in the primary and secondary school curriculum.

The existence of the Association's Committee on Alcoholism is becoming generally known and many inquiries are being received by the Committee members requesting information. Some of the information desired is in reference to how a certain alcoholic can be rehabilitated; others request data to prepare papers on the subject in the course of their school or college work and many organizations (religious, civic, health, industrial), desire speakers. The Committee is of the belief that the State of Missouri should have a positive program to rehabilitate the alcoholic citizens of the state. Such a program would not only be a humanitarian act but one which would materially aid men and women citizens to be productive and save the money of tax payers.

The members of the Committee hope that at the coming meeting of the Association the House of Delegates will endorse a legislative program to be presented at the next meeting of the legislature.

The Committee is thankful to Mr. Walter O. Cromwell, M.P.H., Executive Secretary of the Health Council of Kansas City, Missouri, for his continued assistance.

Recommendations:

The Committee suggests that the Council recommend to the House of Delegates at the coming meeting in St. Louis, April 8-10, 1956:

1. That the Committee on Alcoholism be continued.
2. That the aims of the Committee, as outlined in its report and printed on page 28 of the "Report of Officers and Committees—for 1952" be reaffirmed by the Association.
3. That the Committee on Alcoholism be instructed to continue to study, with the assistance of the Association's officers and the staff of its executive office, necessary legislation that will provide ways and means to meet the problem of alcoholism in Missouri, squarely and effectively.

Ralph Emerson Duncan, Chairman,
Kenneth Coffelt,
George W. Forman,
Joseph B. Kendis,
S. D. Smith.

The Speaker referred this report to the Council.

Round table luncheons were held in the Gold Room.

The report of the Committee on Rural Medical Service, A. E. Spelman, M.D., Smithville, Chairman, follows:

REPORT OF THE COMMITTEE ON RURAL MEDICAL SERVICE

The Committee has given a good deal of thought and study to a number of rural health problems in this

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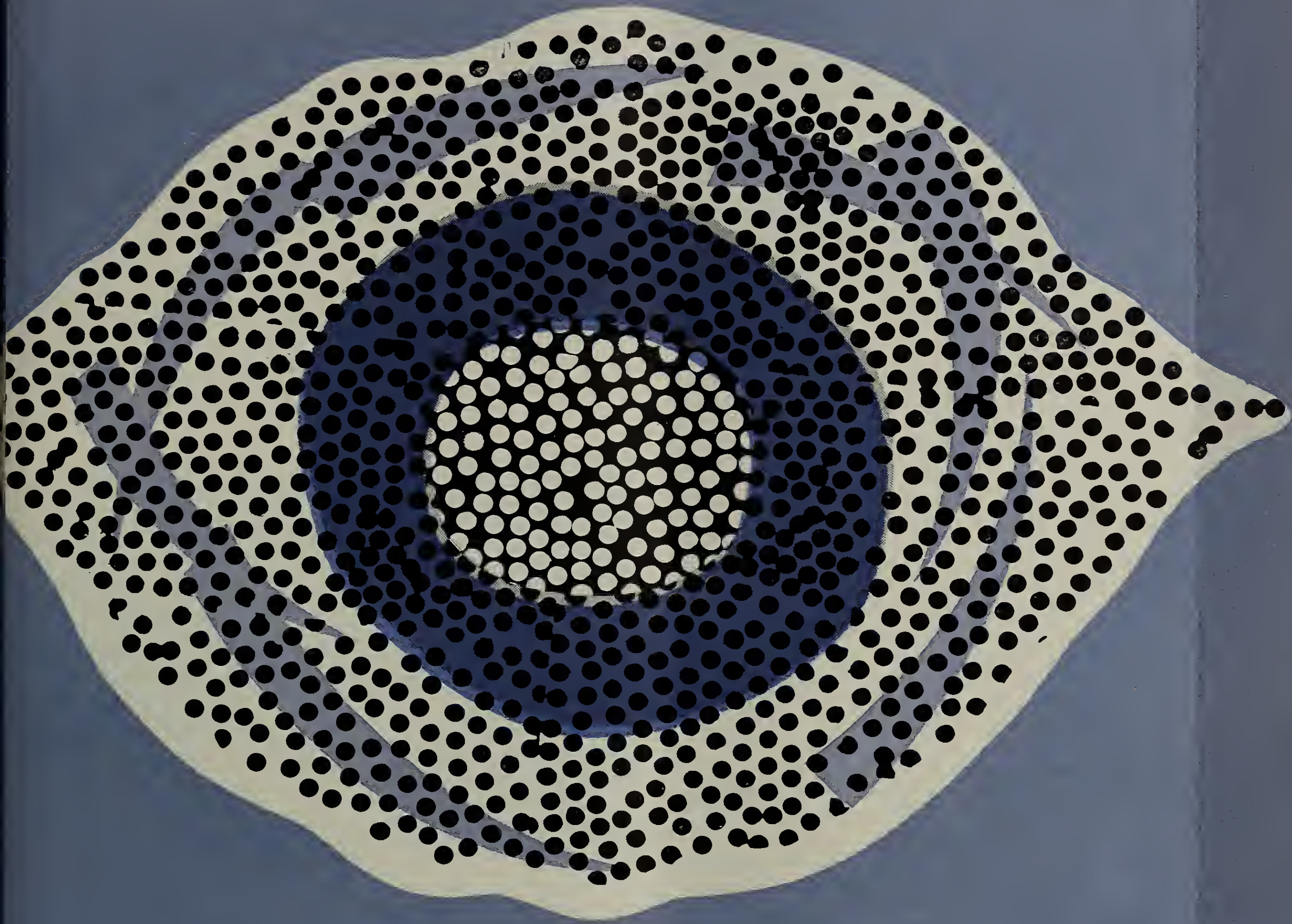

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state. The Committee met in Jefferson City on January 22, 1956, to review reports of rural health activities being carried on in Missouri both by this Committee and other organizations, and to consider and plan for constructive future Committee activity. Some of the Committee's thinking follows, along with certain recommendations and suggestions.

During 1955, some forty-nine doctors established their practice in Missouri towns of 15,000 or less. The Committee recognizes that additional physicians are needed in some localities over the state. The placement bureau, operated from the headquarters office of the State Association, is well versed on the medical manpower situation in Missouri, particularly the rural area where there seems to be more need for concern. The placement service maintains detailed information on communities and towns over the state which are seeking a physician or additional ones. This information has been gathered from various sources including letters and interviews from local community representatives, contacts from other physicians in the area and personal visits to those places in question. In addition, a listing of physicians seeking locations is kept up to date. Efforts are continuously made to bring these two groups of seekers together. Many interviews at the Association's office are held with both groups. A large amount of correspondence is also entailed in this placement service. Plans are being arranged for members of the Committee to meet with groups of interns and residents this spring to discuss rural practice and various locations over Missouri.

The published report of the Indigent Hospital and Medical Care Survey of Twenty-seven Non-Urban Missouri Counties became available in October, 1955. This survey, sponsored and financed through the Missouri Health Council, was carried on by "The Institute for Research in the Social Sciences of the University of Missouri."

The Institute had a three-fold task; namely, (1) preparation estimate of the total number of medical indigents in rural Missouri; (2) enumeration of the characteristics of medical indigents from the standpoint of age, sex, race, medical diagnosis, treatment and services received, and (3) delineation of patterns of organization for medical care in the various counties. Because of the limited funds available for the study, it was necessary to conduct the survey by a sampling technic instead of a complete overall county by county study. In selecting counties to be considered for sampling, the following counties were excluded: St. Louis, St. Louis City, Buchanan, Jasper, Clay, Jackson and Greene. The twenty-seven counties in the survey are representative rural counties as determined by statistical formula.

All members of the Committee were sent a copy of this Indigent Survey Report and asked to study it carefully, so that it might be fullly discussed at the Committee meeting on January 22, 1956. A good deal of time was given to this discussion on January 22 with the following comments and suggestions agreed upon concerning the study report:

1. The published report contains much valuable data on the medical and hospital care problem of the indigent and medically indigent in the state.

2. "The Institute for Research at the University of Missouri" is to be congratulated along with the Missouri Health Council for this worthy effort to gather the facts on this problem as they really are in Missouri.

3. There seems to be, however, a number of weak spots in the data when one attempts to see a clear state-wide picture. These are:

A. Metropolitan areas are not sufficiently covered in the study.

B. Too few doctors reported in relation to the number of doctors in the reporting counties.

C. The amount of time given to the care of the indigent and medically indigent in proportion to total patient care by the doctors is not indicated.

D. Total money value of the free care given by doctors and cash outlay by them for indigents and medically indigents are not revealed.

E. Bad debts were not considered.

4. The study shows that most counties over the state are doing little to solve this problem.

5. The Survey's primary value is that it shows the need for a much more extensive fact finding study of the entire state as to this problem so there will be no loopholes of data which is needed to consider solutions.

6. A state-wide Citizens Committee of fifteen members has been selected by the Missouri Health Council's Executive Committee to serve in an advisory capacity regarding any proposals by the Health Council that may be considered on the basis of the Survey.

A. On January 8, 1956, at a meeting of the Health Council's Executive Committee and the Advisory Committee, a special committee from the fifteen member Advisory Committee was named to recommend to the Advisory Committee ways and means of developing a state-wide program of medical and hospital care for indigent patients. This special committee will study the report carefully with the need in mind of determining the extent of the indigent care problem and of determining the areas where sufficient data is lacking. The special committee will then make its recommendations.

Committee on Medical Education and Hospitals reported their meetings during the year.

Members of the special committee are: W. D. Bryant, Director, Community Studies, Inc., Kansas City; James W. Colbert, Jr., M.D., Dean, St. Louis University School of Medicine, St. Louis; Rudolph T. Danstedt, Director, Social Planning Council, St. Louis; A. Clifford Jones, Clayton, Past-President, Missouri Association for Social Welfare; Harry E. Panhorst, Associate Director, Barnes Hospital, St. Louis; Roscoe L. Pullen, M.D., Dean, University of Missouri School of Medicine, Columbia; A. E. Spelman, M.D., Committee on Rural Medical Service, Missouri State Medical Association, Smithville, and Morris Thompson, President, Kirksville College of Osteopathy and Surgery.

7. Copies of the Survey Publication may be obtained from the Missouri Health Council, Box 658, Jefferson City, Missouri, for the price of $2.00 per copy.

The Committee feels that more thought and study should be given, than is currently true, to the need for more hospital beds in rural Missouri. It seems there is a continuous movement on the part of more and more communities to build or expand local general hospitals. The increasing need for custodial or domiciliary care, particularly for our aging population, appears to be a motivating factor in this hospital construction movement. This Committee is of the opinion that future expansion of the rural Missouri hospital construction program should be done with caution, and major consideration should be given to expanding domiciliary care facilities, thus, alleviating much of the supposed or actual shortage of acute hospital beds now being used for such care.

Assuming that many of the graduates of the new four year Medical School at Missouri University will locate in rural Missouri to practice, the Committee believes those students would benefit much from a program of lectures and discussions on various socio-economic aspects of rural practice as a part of their formal training. The Committee recommends that the Missouri State Medical Association make this suggestion to the Dean of the University of Missouri Medical School, and that this Committee stands ready to help the Medical School activate such a program.

The possibility that preceptorship training programs may become a part of the medical student's curriculum at the University of Missouri has been given some thought and consideration by the Committee. However, the Committee makes no specific recommendations on the matter at this time.

A. E. SPELMAN, Chairman,
FRANCIS L. KOZAL,
W. A. BROYLES,
W. J. SHAW,
JOHN F. PEARL,
CHARLES H. LEWELLEN,
C. A. MCBURNEY,
A. J. C. MCCALLUM,
JACK MULLEN.

The Speaker referred this report to the Reference Committee on Reports of Officers.

The report of the Committee on American Medical Education Foundation, James P. Murphy, M.D., St. Louis, Chairman, follows:

REPORT OF THE COMMITTEE ON THE AMERICAN MEDICAL EDUCATION FOUNDATION

It is a pleasure to again report to you on the activities of your State Committee of the American Medical Educational Foundation for the year 1955.

Progress in the last year was marked by a gradually increasing number of participants in the support of medical education in our state. The number contributing to the AMEF has not increased appreciably but we are now able to tabulate the total number contributing through alumni funds. We find this to be substantial in that in the last year, 905 physicians in the State of Missouri gave upwards of $38,000 toward the support of medical education. This placed us fifteenth among forty-eight states, both in number of participants and in the amount of cash given.

It is interesting to note that in the State of Missouri our three medical schools received in grants from the National Fund for Medical Education an excess of $74,000. Of this amount, St. Louis University School of Medicine received the largest total, that of $41,173.85. In second place was Washington University, which received $34,957.35, and the University of Missouri received $15,433.34. You will note that since we gave only $38,000, and received in excess of $74,000, certainly someone else is making up the difference between these two figures. Compared with some states, we find that Missouri physicians have not done well and efforts should be redoubled to try to reach a larger number of doctors in this state. When we examine the number giving, we find that only 905 physicians contributed toward this purpose, and this number represents considerably less than 25 per cent of the membership in the State Medical Association. Certainly, every effort should be made so that every member of our Association will contribute toward medical education.

In a further effort to bring forth the needs of medical education and the economic plight of our medical schools, the National Fund for Medical Education and the American Medical Association are this year co-sponsoring Medical Education Week. Through the medium of newspapers, periodicals, television, radio and proclamations by state and city government heads, we are trying to acquaint the public with the need for private support.

Reference committee chairmen received material at close of the session.

In the State of Missouri a committee has been set up and in several metropolitan areas a local committee has been formed to conduct this campaign.

In view of this situation, Mr. Speaker, I wish to propose the following resolution for consideration:

WHEREAS, The progress of medical science in recent years has made and continues to make longer and healthier lives for people everywhere, and

WHEREAS, The horizons of the medical profession are continually being widened to make possible the application of new knowledge and new skills in the care of the sick, and

WHEREAS, In consequence, the research and teaching responsibilities of the medical schools of the United States must necessarily become greater and more costly if the profession is to measure up to its full potential of service to mankind in years to come, and

WHEREAS, The problems—both academic and financial—that confront our schools of medicine need to be better understood by the public if they are to have the growing moral and financial support that they must have to fulfill their responsibility, and

WHEREAS, The nation during the week of April 22 to 28, 1956, will observe Medical Education Week for the purpose of focusing public attention on these problems of our medical schools and of winning public support and understanding for them, now therefore be it

Resolved, That the House of Delegates of the Missouri State Medical Association give formal expression of its support of all the efforts that are being made by professional and lay organizations alike to provide more adequately for the material needs of our schools of medicine to the end that the progress of medical research may be hastened and that doctors of medicine in years to come may be prepared and trained in a way that will give to all our people the full benefits of all that modern medical science can offer in terms of longer, healthier and happier life.

The Speaker referred this report to the Reference Committee on Medical Education and Public Welfare.

The report of the Committee on Veterans Medical Care, W. J. Shaw, M.D., Fayette, Chairman, follows:

REPORT OF THE COMMITTEE ON VETERANS MEDICAL CARE

The Committee on Veterans Medical Care has not met during 1955 but has maintained close contact with the officers of the Association and with the Council on Medical Service of the American Medical Association.

In an attempt to keep M.S.M.A. cognizant of national trends in veteran's affairs, the Association was represented at a State Veteran's Affairs Conference in Chicago on February 19, 1955, where forty-seven delegates from state and county veterans' affairs committees were present, and at a regional meeting of twelve mid-central states in Indianapolis on September 27, 1955.

The purpose of the Chicago conference was to inform state society representatives of developments at the national level and to obtain their advice and suggestions regarding Association action during 1955. Problems discussed were additional material that the committee should provide to the states, presumption of service connection by legislation, the Home Town Care program, liaison between the committee and state societies, relationship to the public in the educational program, and liaison between state societies and veterans' groups. This conference was reported to all state societies in April 1955.

The number of veterans in civil life at the end of October 1955, was 22,051,000, an increase of 42,000 since October 1954. The average daily load of patients was given as 113,736, of which 110,000 were in V.A. Hospitals and the remaining 3,380 in non-V.A. hospitals. There is given also an average daily member load of veterans of all wars under domiciliary care of 17,206, an increase of 346 under domiciliary care since October 1954. At the end of October 1955, there were five new V.A. hospitals under construction. A total of sixty-one new V.A. hospitals had been completed up to the end of that month.

The Committee on Veterans Medical Care, in view of the conferences between the American Legion and the A.M.A., and in view of the relationship of these conferences to continuation of the present veterans medical care program awaits a report from the A.M.A. on the recommendation of the A.M.A. Liaison Committee with the American Legion as to areas of understanding between the two organizations and suggestions as to the extent of future educational programs on veterans medical care. The committee would also like a report from the A.M.A.-American Legion Liaison committee as to any amendments, changes or interpretation of the present policy on veterans' medical care that may be desirable.

W. J. Shaw, Chairman,
Leo J. Hartnett,
Ralph Perry,
Arthur R. Dalton.

The Speaker referred this report to the Reference Committee on Miscellaneous Affairs.

The report of the Committee on Civil Defense, Carroll P. Hungate, M.D., Kansas City, Chairman, follows:

REPORT OF THE COMMITTEE ON CIVIL DEFENSE

In May 1954, the over-all plan of recruitment, training and organization of the Medical Health Division of the Missouri Civil Defense Agency was presented to representative physicians and para-medical groups from each of the ten districts of the Missouri State Medical Association. These plans have been implemented during the months which followed the May 1954 meeting.

During the year 1955 general meetings have been held in the First, Sixth and Ninth Districts. The Chairman of the Civil Defense Committee spoke at meetings held in Rolla, Sedalia, Marshall, Chillicothe and St. Joseph. Dr. H. M. Hardwicke, representing Civil Defense in the State Office of Public Health, organized other Medical Health Division meetings in various sections of the state.

On paper, at least, most of the ten districts have a well organized Medical Health group. To maintain continued interest is a major problem and has been fairly well accomplished in the First, Third, Fourth, Fifth, Sixth, Seventh, Eighth and Ninth Districts for the state. The change in the district chairmen in districts Two and Ten slowed down the program in those districts.

Special effort has been made to obtain a 200 bed improvised hospital unit from the Federal Civil Defense Administration for publicity and the training of Medical Health personnel in the State of Missouri. Due to restrictive custodial requirements, no city, at this time, has been willing to sign for the hospital unit. Such a unit is vital for our training program and it is anticipated that the restrictive requirements will be changed at the national level in order to accomplish the end to which the use of this temporary hospital was intended. The physicians and para-medical groups in Chillicothe are to be especially complimented for organizing a complete staff for a 200 bed emergency hospital unit.

Fifty year men were honored guests at the session.

The Medical Health Group at Columbia have, likewise, an active group which could be readily integrated into a 200 bed improvised hospital staff requirements.

Dr. Curtis Lohr during 1955 had an extremely realistic simulated evacuation of the St. Louis County Hospital. This evacuation has received national recognition and again the activities of the medical profession in Missouri have received high commendation for their contribution to the solution of Medical Civil Defense problems in the United States.

Throughout the state, activity in Civil Defense has somewhat lessened at the moment, as plans for surveys on evacuation and shelters are developed. These surveys are a part of a national program for which Congress appropriated $10,000,000.00. Commissions to supervise the survey have been formed in Kansas City and St. Louis, the two target cities, and contracts for particular parts of the survey have been let. The results of these surveys should provide us with some concrete answers on how to provide protection from fall out; the feasibility of evacuation; where bottle necks exist and how they can be removed; how many underground shelters will be needed over and above shelters that can accommodate evacuees already existing in rural areas; sources of food supplies and medical equipment.

In some areas the "Home Nursing Course" offered by the Red Cross has been given to local personnel who, in turn, qualify as instructors for their local area. In this manner, the goal of one trained home nurse in every home can be accomplished.

Civil Defense is a continuous program and it is anticipated that gradual progress will be made from year to year in the solution of many problems. It can be expected that the National Civil Defense law will be rewritten during this session of Congress. The rewriting of this law should provide for increased federal supervision and expenditures of funds at the state and local levels. This should provide a more effective program.

Because Civil Defense will be part of the defense picture as far as one can foresee, the Council of the Association has been asked to make the Civil Defense Committee a permanent committee.

Carroll P. Hungate, Chairman,
A. S. Bristow,
John R. Forgrave,
Curtis H. Lohr,
James F. Dowd,
William C. Allen,
Carl D. Siegel,
Don J. Silsby,
Samuel A. Grantham,
George E. Thoma,
J. M. Canella,
George L. Watkins, Jr.

The Speaker referred this report to the Reference Committee on Miscellaneous Affairs.

The report of the special Committee on Hospital and Professional Relations, Hollis N. Allen, M.D., St. Louis, Chairman, follows:

REPORT OF THE COMMITTEE ON HOSPITAL AND PROFESSIONAL RELATIONS

The Council authorized the appointment of a special committee to meet with representatives of the Missouri Hospital Association. Members of the Committee, representing the Missouri State Medical Association are Hollis N. Allen, Stanley S. Peterson, C. M. Waggoner, H. E. Petersen, St. Joseph, immediate past president, M.S.M.A., Victor B. Buhler, President M.S.M.A., and W. S. Sewell and Mr. T. R. O'Brien, ex officio members.

Members of the Committee, representing the Missouri Hospital Association are Mr. Harry E. Panhorst, Barnes Hospital, St. Louis; Mr. Leslie D. Reid, St. Luke's Hospital, Kansas City; Mr. C. Steacy Pickell, General Hospital, Kansas City; Sister Mary Bertrand, R.S.M., St. John's Hospital, Springfield; and David Littauer, M.D., Jewish Hospital, St. Louis. Mr. H. L. Burgin, President, Missouri Hospital Association and Mrs. Irene McCabe, Executive Secretary, Missouri Hospital Association, are ex officio members.

The Joint Committee met on June 15, August 21 and October 23, 1955. Temporary working arrangements were agreed as follows:

Name: Committee on Hospital and Professional Relations.

Membership: Six persons from each Association, plus the Executive Secretaries as ex officio members.

Length of Appointment: Appointments shall be for three years, staggered, so that two members from each group shall terminate their appointment each year, with two of the initial appointments from each group to be for one year, two for two years and two for three years.

Chairman: To serve until June of each year, alternately a medical and hospital representative shall serve as chairman.

Secretary: To be the chairman of the group not serving as chairman of the Joint Committee.

Meetings: To be held in early March and early fall of each year prior to the annual meetings of each Association.

Mr. Burgin was elected temporary chairman and Dr. Allen was elected temporary secretary to serve until June 1956.

It was agreed that Mr. O'Brien, Dr. Allen, Mrs. McCabe and Mr. Burgin would draft regulations for the operation of the Joint Committee. Such regulations to be approved by the two sponsoring organizations before ratification.

"HOSPITAL IMMUNITY TO SUIT"

Two legislative acts considered by the Missouri General Assembly in 1955, known as H.B. 374 and H.B. 393, were defeated in the House. They provided that hospitals should lose immunity to suit to the extent of any liability insurance carried by the hospitals. Since most hospitals are incorporated under the pro forma decree acts of Missouri, they are immune to suit. However, some hospitals have carried liability insurance and that, perhaps, explains the introduction of the bills.

Mr. Harry Panhorst, presented a "report of the immunity of hospitals in Missouri as it pertains to the Negligent Acts of hospital employees." The report cites legal decisions relative to the question of immunity and points out that immunity extends only to the hospital and not to the negligent employee. A copy of the report is on file in the office of the Missouri State Medical Association. Further consideration will be given to this subject at later meetings of the Joint Committee.

"THE BLUE CROSS-BLUE SHIELD COMPREHENSIVE CONTRACTS"

The actions of the Blue Cross Board on July 20, 1955, in rejecting the comprehensive ancillary service certificate previously adopted by the Blue Cross and Blue Shield Board of Trustees were considered at a special meeting of the Joint Conference, August 21, 1955. The medical representatives presented their viewpoint relative to the relationship between Blue Cross and Blue Shield on the question of payment for, so-called, "ancillary services." The hospital representatives pointed out that such services are included in most of the Blue Cross plans rather than in the Blue Shield plans.

The Joint Committee will consider the same subject at later meetings including "Recommended Policies for Hospital-Medical Staff Relationships," jointly approved by the Massachusetts State Medical and State Hospital Associations; and "Relation of Physicians and Hospitals," a report published by the American Medical Association.

Hollis N. Allen, Chairman,
C. M. Waggoner,
Stanley S. Peterson,
Walter S. Sewell,
Victor B. Buhler,
H. E. Petersen.

The Speaker referred this report to the Reference Committee on Medical Education and Public Welfare.

The report of the Council, W. S. Sewell, M.D., Springfield, Chairman, follows:

REPORT OF THE COUNCIL

The Council met at the Sheraton Hotel, St. Louis, on June 25 and 26, 1955, W. S. Sewell, M.D., Springfield, Chairman, presiding. Those present were Drs. W. F. Francka, Hannibal; R. O. Muether, St. Louis; Joseph C. Creech, Troy; J. Loren Washburn, Versailles; C. G. Stauffacher, Sedalia; Richard H. Kiene, Kansas City; J. H. Summers, Lebanon; Ben M. Bull, Ironton; Victor B. Buhler, Kansas City; Carl F. Vohs, St. Louis; E. Royse Bohrer, Jefferson City; J. I. Simon, St. Louis; Joseph C. Peden, St. Louis; Durward G. Hall, Springfield; Roscoe L. Pullen, Columbia; Thomas H. Alphin, Columbia; James R. Amos, Jefferson City; Ralph R. Coffey, Kansas City; A. E. Spelman, Smithville; A. P. Rowlette, Moberly; Daniel L. Landau, Hannibal; Henry Allen, St. Louis; Messrs. John W. Noble, Kennett; John Buckner, Springfield; Lemoine Skinner, Ed Schneider, Ray McIntyre, T. R. O'Brien, St. Louis.

SINGLE LICENSURE

Mr. O'Brien reviewed the actions taken on the study of osteopathy by the American Medical Association, the majority report of a reference committee favorable to the Cline report being defeated and a minority report not favorable to it being accepted by a vote of 101 to 81. An analysis follows:

RELATIONS BETWEEN OSTEOPATHY AND MEDICINE

A study has been made of osteopathic colleges by a special committee of the American Medical Association. The following persons were members of the Committee: James Z. Appel, M.D., Pennsylvania; Leonard Larson, M.D., North Dakota; Thomas P. Murdock, M.D., Connecticut; Cleon Nafe, M.D., Indiana, and John W. Cline, M.D., California, Chairman.

Drs. L. R. Chandler, former dean Stanford University School of Medicine; J. Murray Kinsman, Dean of the University of Louisville School of Medicine; W. Clarke Wescoe, Dean of the University of Kansas School of Medicine, were special advisors and assisted the special committee with its on-the-campus study of the osteopathic colleges.

The recommendations of the Special Committee, embodied in a report covering twenty-five mimeographed pages, and known as the "Cline Report" follows:

RECOMMENDATIONS

1. That the House of Delegates declare that current education in colleges of osteopathy does not constitute the teaching of "cultist" healing.
2. That the House of Delegates declare the policy of the American Medical Association to be to encourage doctors of medicine to assist in osteopathic undergraduate and postgraduate medical educational programs in those states in which such participation is not contrary to the announced policy of the state medical association.
3. That the House of Delegates request state medical associations to assume the responsibility of determining the relationship of doctors of medicine to doctors of osteopathy within their respective states or request their component county societies to do so.
4. That this or a similar committee be continued to confer with representatives of the American Osteopathic Association concerning common or interprofessional problems on the national level.

The report with the recommendations was referred to the Reference Committee on Medical Education and Hospitals of the House of Delegates.

The report of this Reference Committee was made up in two parts, the Majority report and the Minority report.

The Majority report which was approved by 4 of the 5 members follows:

MAJORITY REPORT

"Your Reference Committee after a study of the report of the Committee for the Study of Relations Between Osteopathy and Medicine and the study of other evidence submitted is not completely satisfied that the current education in colleges of osteopathy is free of the teaching of 'cultist' healing.

"In view of the desire to elevate the standards of teaching in colleges of osteopathy, your Reference Committee recommends approval of the recommendation of the Committee that doctors of medicine may accept invitations to assist in osteopathic undergraduate and postgraduate medical educational programs in those states in which such participation is not contrary to the announced policy of the respective county and state medical associations. Such teaching services would be ethical.

"Your Reference Committee approves the recommendation of the Committee that the House of Delegates request state medical associations to assume the responsibility of determining the relationship of doctors of medicine to doctors of osteopathy within their respective states or request their component county societies to do so.

"Your Reference Committee recommends that a committee be appointed at the discretion of the Board of Trustees to confer with representatives of the American Osteopathic Association concerning common or interprofessional problems on the national level."

The minority report was submitted by the one dissenting member of the reference committee.

The Council met periodically during the year.

MINORITY REPORT

"One member of the Reference Committee was completely satisfied that an appreciable portion of current education in colleges of Osteopathy definitely does constitute the teaching of 'cultist' healing, and is an index that the 'osteopathic concept' still persists in current osteopathic practice. Since he cannot with good conscience approve the recommendation that doctors of medicine teach in osteopathic colleges where 'cultism' is part of the curriculum, he respectfully makes the following recommendations to the House of Delegates:

"1) That the report of the Committee for the Study of Relations Between Osteopathy and Medicine be received and filed; and that the Committee be thanked for its diligent work, and be discontinued.

"2) That if and when the House of Delegates of the American Osteopathic Association, their official policy-making body, may voluntarily abandon the commonly so-called 'osteopathic concept,' with proper deletion of said 'osteopathic concept' from catalogs of their colleges; and may approach the Trustees of the American Medical Association with a request for further discussion of the relations of Osteopathy and Medicine, then the said Trustees shall appoint another special committee for such discussion."

ACTION TAKEN

The Minority Report was offered as a substitute for the Majority Report and the House of Delegates accepted it by a vote of 101-81.

It was felt that the question may be reopened at the December session of the A.M.A. It was reported that the Missouri delegates voted 3 for the majority report and 1 against it. It was pointed out that a suit pending in Illinois, and situations in several states neighboring Missouri, may have caused reaction against the majority report. After this was discussed, it was pointed out that the House of Delegates of the Missouri State Medical Association instructed the Council to continue its study toward a single licensure act in Missouri, re-evaluating the situation and bringing to the House new recommendations. On motion of Dr. Washburn, it was voted to re-establish the former committee to continue study of the single licensure act in Missouri.

VA CONTRACT

A request from the Veterans Administration to renew the contract for the home care program which has been in effect since 1947 was presented. Figures for usage of this service were presented. On motion of Dr. Bohrer, it was voted to renew the contract.

MASW HEALTH COMMITTEE

A request that the executive secretary of the Association serve on the health committee of the Missouri Association of Social Welfare was presented. On motion of Dr. Muether it was voted that an individual member or members of the Association be suggested in lieu of the executive secretary.

A.M.A. COUNCIL ON MENTAL HEALTH

A communication from the A.M.A. indicating that a conference on Mental Health would be an annual conference was presented. It was pointed out that the chairman of the Association's committee had attended such a conference at his own expense. On motion of Dr. Bohrer, it was voted that expenses of the chairman, or a representative of the Committee on Mental Health, for attendance at the conference should be paid by the Association.

PHYSICIANS AND SCHOOLS CONFERENCE

On request that attendance for the Field Secretary and chairman and a member of the Committee on Infant and Child Care at the A.M.A. Conference on Physicians and Schools this fall at Highland Park, Illinois, be approved, approval was voted on motion of Dr. Muether.

A.M.A. LEGISLATIVE CONFERENCE

On request, representation at the Legislative Conference of the A.M.A. was voted approval on motion of Dr. Stauffacher.

ADVISORS FOR PRACTICAL NURSES

A request for medical advisors for the practical nurse groups at Nevada and Lamar was referred to the Councilors of the Districts who named Dr. Pearse for Nevada and Dr. Bickel for Lamar.

STATE LEGISLATION

Mr. O'Brien presented a "final action" report on all bills in the Missouri Legislature in which the Association had been interested. He called attention to House Bills 374 and 393, which would cause hospitals to lose immunity to suit up to the amount of insurance carried. These were defeated and he presented letters from hospital administrators thanking him for the help given by the Association. He called attention to House Bills 457 and 562, both of which would influence the Board of Medical Examiners by creating a department in charge of all boards and also an appeals board and all other boards would be bound by this board's decisions. H.B. 562 led to Senate Resolution No. 106, as follows:

"WHEREAS, The State Reorganization Commission recommended to this General Assembly that a system of central administration in a single office in Jefferson City be established for fifteen of the state examining and licensing boards; and

"WHEREAS, The reasonableness of examination and licensing fees of such board should be inquired into in order to ascertain whether licensees and applicants are being equitably dealt with; and

"WHEREAS, There is considerable difference in the procedural laws applicable to such various examining and licensing boards; and the regulatory measures and practices of such boards are likewise different; and

"WHEREAS, Because of such differences, there is a lack of uniformity in the procedure before the different agencies and there is serious question as to whether the right of persons subject to such regulatory laws and regulation are adequately protected in the day to day operations of such various agencies,

"*Now, Therefore, Be It Resolved*, That a committee of the Senate consisting of five members thereof to be appointed by the President Pro Tem of the Senate be created to investigate and study the laws, regulations, organization, practices and operations of the various professional licensing boards with a view to promoting uniformity in procedure, reducing the costs of operation of the various boards, insuring equitable treatment for and safeguarding the rights of applicants; and

Be It Further Resolved, That said committee report and submit its recommendations to the Senate of the 69th General Assembly; and

"*Be It Further Resolved*, That the Committee on Legislative Research be requested to provide such professional and clerical assistance as may be required by the committee; and

"*Be It Further Resolved,* That the expenses of the members of such committee in the performance of their duties under this resolution shall be paid from the contingent fund of the Senate."

The following Senate Committee was appointed: Senators Kinney, Spradling, Gibson, Crain and Hawkins.

Regarding S.B. 255, which failed to pass, Mr. O'Brien pointed out that only in the last day of the session was an amendment adopted which would make it not apply to Blue Cross and Blue Shield. He said that H.B. 202 was delayed until the use of a Medical Advisory Committee by the Department of Education could be clarified, and Dr. Kiene reported on a meeting on June 12 of the Advisory Committee with the Department, saying that he felt cooperation would be good.

NATIONAL LEGISLATION

Mr. O'Brien told of recent actions of Congress on the cash disability payments under the Social Security Act, and in regard to the extension of the doctor draft act.

ANNUAL SESSION

The proposed outline for the 1956 Annual Session by the Committee on Scientific and Postgraduate Work was presented, as follows:

Monday, April 9, 1956

10:00 a.m. House of Delegates.
12:00 noon Luncheon with guest speaker.
2:00 p.m. Scientific Session (30 minutes intermission).

Tuesday, April 10, 1956

9:00 a.m. Scientific session.
10:00 a.m. Intermission.
10:30 a.m. Sections on Medicine and Obstetrics.
12:00 noon Round Table Luncheon.
2:00 p.m. Sections on Surgery and Pediatrics.
3:30 p.m. Intermission.
4:00 p.m. House of Delegates.

Wednesday, April 11, 1956

9:00 a.m. Scientific session.
10:00 a.m. Intermission.
10:30 a.m. Scientific session, panel of CPC.
12:00 noon Open.
1:30 p.m. Wet clinics at Washington and St. Louis Universities.
4:00 p.m. House of Delegates.
6:30 p.m. Annual Banquet.

After discussion by most of the Councilors, on motion of Dr. Muether, it was voted that it be recommended that the same schedule used in 1955 be followed.

TREASURER'S REPORT

Dr. Simon gave the financial statement of the Association and on motion of Dr. Bohrer, this was accepted.

INDUSTRIAL HEALTH

A report of the Committee on Industrial Health, dealing with a Presidential Award for contribution to employment of the handicapped; discussion of the booklet, "A Survey of Union Health Centers," and unemployment compensation and Workmen's Compensation, was presented. On motion of Dr. Muether, the report was accepted.

COMMITTEE APPOINTMENTS

Dr. Buhler gave the following report, which on motion was approved:

"Because of the change in the by-laws, increasing the Committee on Mental Health from five to ten members, that Committee was not appointed for approval of the House of Delegates. The following committee has since been appointed and is submitted for approval of the Council:

"Committee on Mental Health: Thomas Thale, St. Louis, Chairman; G. Wilse Robinson, Jr., Kansas City; Ernest H. Parsons, St. Louis; William J. Cremer, Fulton; Henry V. Guhleman, Jefferson City; John J. O'Hearne, Kansas City; James N. Haddock, St. Louis; Ellsworth H. Trowbridge, Jr., Kansas City.

"Several changes in the Committee on Civil Defense were suggested and the committee is named for approval as follows: Carroll Hungate, Kansas City, Chairman; A. S. Bristow, Princeton; John R. Forgrave, St. Joseph; Curtis H. Lohr, St. Louis; James F. Dowd, St. Louis; William C. Allen, Glasgow; Carl Siegel, Sedalia; Don J. Silsby, Springfield; Samuel A. Grantham, Joplin; George E. Thoma, St. Louis.

"Shortly after the annual session, Dr. C. Souter Smith, Springfield, was elected to the Springfield City Council and retired from the practice of medicine. Thus the chairmanship of the Committee on Conservation of Eyesight was left vacant. Dr. A. N. Lemoine, Kansas City, was appointed chairman, and Dr. W. J. Marshall, Springfield, was appointed to the committee. This is submitted for approval of the Council."

A.M.A. 1955 SESSION

Drs. Peden and Hall reported on the A.M.A. 1955 session, reviewing the discussions before the reference committee on the report of osteopathy; several resolutions dealing with hospital accreditation with a committee appointed to review this; recommendation that usual scientific procedures be followed in the future on the introduction of products such as the Salk vaccine; intern program continuing on the one-fourth rule; forming of a permanent committee on geriatrics; survey of headquarters office which recommended printing be done by a commercial firm.

UNIVERSITY OF MISSOURI MEDICAL SCHOOL

Dr. Pullen showed slides and discussed the progress of the building program of the University of Missouri School of Medicine. He said there were 102 full time people on the faculty and 25 part time. He said since the school had been organized, 100 scientific papers have been published by faculty members and 3 textbooks, as well as the editing of 10 other books. He said thirty-one students will enter the third year of study this fall. Dr. Alphin told of the applications for entrance to the medical school and said the quality of students applying was higher than for the national level. He said that the costs for a student will be held at a minimum.

Members of the Medical Secretaries group attended the Annual Banquet.

CODE

Dr. Pullen presented the "Code for University Teaching Hospitals" and went over it with the Council, answering questions that were raised.

On motion of Dr. Vohs, Drs. Coffey, Rowelette and Spelman as chairmen respectively of the standing committees on Medical Education and Hospitals, Medican Economics, and Rural Medical Service were asked to serve as a committee to remain conversant with progress and activity at the Medical School of the University and to bring to the attention of the standing committees this information for report later to the Council.

FIELD SECRETARY'S REPORT

Mr. McIntyre reported on hospital building activity throughout the state, giving as hospitals recently opened or additions, those who had raised money and those that were attempting to at the following locations: West Plains, Crystal City-Festus, Cape Girardeau, Richmond, Joplin, Bethany, Albany, Cameron, North Kansas City, Excelsior Springs, Carthage, Sedalia, Hannibal, Marshall, Fulton, Springfield, Smithville. He reported on doctors who had recently located, or would within a short time, in the following Missouri towns outside the two large city areas: Edina, Richmond, Licking, Lebanon, Fairfax, Osceola, Willow Springs, Van Buren, Mexico, Clinton, Jackson, Smithville, Bloomfield, Poplar Bluff, Ironton, Lamar, Farmington, Illmo, Fulton, Pacific, St. James, Albany, Bethany, Cape Girardeau, Joplin, Springfield and St. Joseph.

Society meetings since the annual session were reviewed, as was a meeting of the Missouri Health Council, workshops on school health at Warrensburg and at Cape Girardeau. He said that the exhibit at the State Fair, August 20-28, would be an A.M.A. exhibit on "You and Your Body."

COMMITTEE ON FRACTURES

Dr. Kiene presented a report of the Committee on Fractures dealing with a conference with the chiropody group on possible future legislation. It included a report of the Trauma Committee of the College of Surgeons which was presented to the Committee. On motion of Dr. Kiene, the report was accepted.

COMMITTEE ON INFANT AND CHILD CARE

Dr. Landau presented a report of the Committee on Infant and Child Care including the following two recommendations by the Committee:

"Having met and discussed all the information available to them to date, the Committee on Infant and

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1. Johnston, T. G., and Cazort, A. G.: J. Allergy 27:90, 1956. 2. Schwartz, E.: New York J. Med. 56:570, 1956. 3. Schiller, I. W., et al.: J. Allergy 27:96, 1956.

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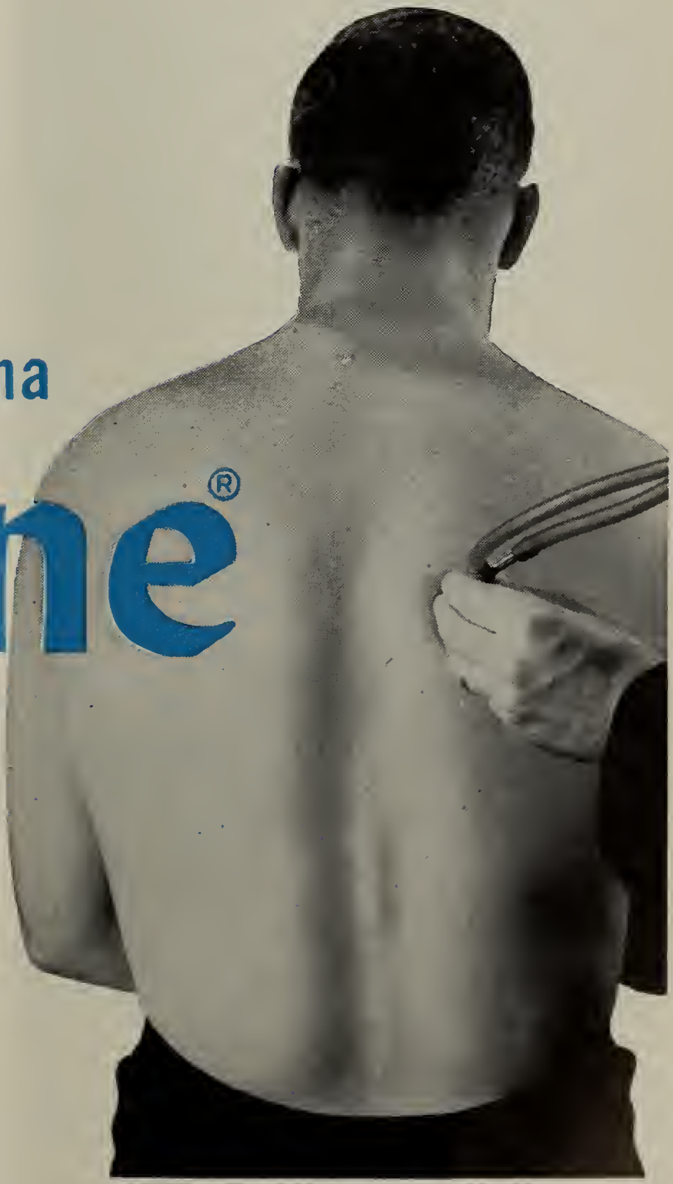


Child Care of the Association feels there is not and will not be for some time the information desired for a profound or permanent decision on the safety or efficacy of polio vaccine. From the information available and their own medical knowledge, the potentiality of the vaccine protecting children outweighs its risks in general and they expect this balance to be increased in this direction. The second shots therefore should be given to those desiring. The institution of a new series should be stayed until after the polio known season, as its value and safety when given during this season is sufficiently unknown to justify its use on a mass basis, in a state in which polio is not a problem, to the degree to justify the unknown risk. The first shot has been given in the state long enough ago so that the second shot should act beneficially to secure mass immunity and it is unlikely to precipitate the incidence of disease.

"It was voted that the Committee recommend that physicians follow the stated policy of the A.M.A. including priorities. The statement follows:

" 'The rechecking of manufacturing procedures and laboratory data following the outbreak of polio in a few vaccinated children has caused unavoidable delay. In the midst of such tension the Eisenhower administration is to be commended for conducting a careful and scientific review of the entire situation before permitting continuance of the program.

" 'In behalf of myself and the A.M.A. Board of Trustees, I have assured President Eisenhower that the Nation's physicians will cooperate in limiting the polio vaccination to children from 5 through 9 until the vaccine is available in larger supply. Children in this age group who do not receive the vaccine during the current program of the National Foundation for Infantile Paralysis for first and second graders will be vaccinated after its completion.

" 'The American Medical Association is asking all physicians to administer vaccine only to children in the priority age group of 5 through 9 until further notice. This will assure that the vaccine will be used first for those most susceptible to the disease.

" 'Physicians are all being asked to keep a record on each child vaccinated. This will include the name and age, the date of vaccination, the site, the manufacturer of the vaccine used and the lot number. This voluntary priority vaccination plan follows the recommendation of the National Advisory Committee on Poliomyelitis Vaccination approved by Secretary Oveta Culp Hobby and contained in her report to the President on May 16.' "

This was discussed by all present, with those present at the Committee meeting filling in with more of the scientific data presented at the Committee meeting. On motion of Dr. Bull, seconded by Dr. Summers, the report was approved.

COMMITTEE ON CARDIAC DISEASES

The report of the Committee on Cardiac Diseases was presented, dealing with co-sponsoring a course in cardiac auscultation, H.B. 183, and rheumatic fever. On motion of Dr. Buhler, the report was accepted.

SPECIAL COMMITTEE ON HOSPITALS

The request of the Missouri Hospital Association that representatives of the Missouri State Medical Association meet with their representatives for discussion of mutual problems was reported. Since it was wished to have an early meeting, the President and Chairman of the Council appointed the following committee: three members from the Committee on Hospital and Professional Relations who serve on the Joint Conference, Drs. Hollis Allen, St. Louis; Charles M. Waggoner, Columbia; and Stanley S. Peterson, Springfield; Dr. Buhler, Dr. H. E. Petersen, Dr. Sewell, and Mr. O'Brien ex-officio. This Committee was approved on motion of Dr. Francka. A meeting on June 15 was reported, at which discussion centered around hospital liability for malpractice, staff and hospital relationship, medical practice act, and the general plans for the committee to function. The committee was set up with terms of office and plan for officers, and times set for meeting as prior to MSMA annual session in the spring and prior to the hospital meeting in the fall, the next meeting to be October 30.

DOCTOR DRAFT SITUATION

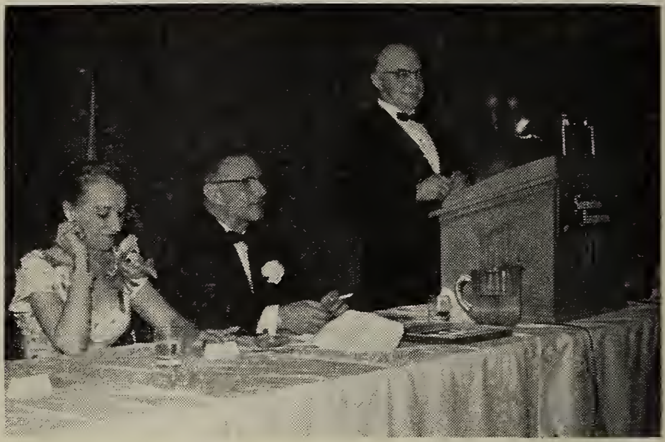
The Doctor Draft law and situations pertaining to it were discussed by Dr. Allen. This was commented on by several.

BLUE SHIELD COMPREHENSIVE CONTRACT

The new Blue Shield Comprehensive Contract was explained to the Council. This contract will include surgical benefits to the extent of $300, in-hospital medical visits up to 70 days care; x-ray, pathology, anesthesia and physical therapy in full for hospital cases with certain exclusions, and office care for traumatic accident cases, including x-ray as per the schedule of benefits.

The new Ford and GM contracts were discussed and though information presently at hand is rather scant, it appears that the new contract of Blue Shield may be similar insofar as the benefits are concerned.

It was explained that the contracts have been agreed to by the Boards of Trustees of the St. Louis Blue Shield and Blue Cross plans and it is hoped that they will be offered for sale, to industrial groups only, in a short time.



Dr. Elmer Ellis was guest speaker at the Annual Banquet.

A meeting of hospital representatives is to be held on July 10, at which time the new comprehensive contracts are to be discussed so that recommendations may be made to the member hospitals of the Blue Cross in the St. Louis Area. It is possible that the hospitals may recommend changes in the coverage at that time so that x-ray, pathology, anesthesia and physical therapy shall be included in Blue Cross rather than Blue Shield as at present and as planned in the new comprehensive certificates. In that event, the Trustees of Blue Shield will wish advice from the Council of MSMA.

DIVISION OF HEALTH

Dr. Amos reported on work of the Division of Health, speaking especially of the hospital licensing law and the survey being made in that connection, saying about one-sixth of the survey had been completed; and the Hill Burton plans for rural hospital beds which may need review as to types of beds required.

Meeting of July 31

The Council met at the Sheraton Hotel, St. Louis, on July 31, W. S. Sewell, M.D., Springfield, Chairman, presiding. Those present were Drs. Sewell, Donald M. Dowell, Chillicothe; W. F. Francka, Hannibal; R. O. Muether, St. Louis; Joseph C. Creech, Troy; J. Loren Washburn, Versailles; J. H. Summers, Lebanon; Ben M. Bull, Ironton; Victor B. Buhler, Kansas City; Carl F. Vohs, St. Louis; Jerome I. Simon, St. Louis; Hollis Allen, St. Louis; Henry Allen, St. Louis; Messrs. Ed Schneider, Ray McIntyre, T. R. O'Brien, St. Louis.

COMPREHENSIVE CONTRACT

The Council met briefly to consider the proposed comprehensive contract being developed by the Blue Shield and Blue Cross Plans.

MISSOURI MEDICAL SERVICE

The Councilors were guests at a regular board meeting of Missouri Medical Service.

Meeting of August 28

The Council met at the Sheraton Hotel, St. Louis, on August 28, W. S. Sewell, Springfield, Chairman, presiding. Those present were Drs. Sewell, W. F. Francka, Hannibal; R. O. Muether, St. Louis; Joseph C. Creech, Troy; C. G. Stauffacher, Sedalia; Richard H. Kiene, Kansas City; J. H. Summers, Lebanon; Ben M. Bull, Ironton; Victor B. Buhler, Kansas City; Carl F. Vohs, St. Louis; E. Royse Bohrer, Jefferson City; Joseph C. Peden, St. Louis; Daniel L. Sexton, St. Louis; Edward Kraft, St. Louis; Messrs. John W. Noble, Kennett; Ed Schneider, Lemoine Skinner, T. R. O'Brien, St. Louis.

MISSOURI MEDICAL SERVICE

The Council discussed the progress and received reports on the work of the comprehensive contract developed by the Blue Shield and Blue Cross Plans.

The present situation was discussed and on motion, properly seconded, it was voted that the Council go on record as approving the steps taken by the Board of Blue Shield to attempt to work out an amicable solution to the problem of the comprehensive certificate and express appreciation to Dr. Vohs for his untiring efforts on the part of the medical profession and in the care of the patient.

The following resolution was unanimously adopted:

The Council of the Missouri State Medical Association by unanimous vote affirms that radiologic, pathologic, anesthesiologic and physiatric services are medical services in the same degree as all other phases of the practice of medicine.

The Council further affirms that Blue Cross and Blue Shield are to be commended for their initial joint action to provide these services more completely to the public by development of companion comprehensive programs under which these medical services (with the exception of routine laboratory services) would have been provided by Blue Shield and hospital services by Blue Cross.

The action of Blue Cross on July 20, 1955, in redefining radiologic, pathologic, anesthesiologic and physiatric services as hospital services and incorporating these services into a Blue Cross hospital certificate violates the spirit of partnership that has existed for ten years between Blue Cross and Blue Shield, ignores the essential medical nature of the services and offers to the public a program of protection far less adequate than the joint Blue Cross-Blue Shield certificate now proposed by Blue Shield. This proposed certificate preserves the essentials of the broad program originally agreed to by Blue Cross and Blue Shield. It complies with all the specific conditions which Blue Cross has said are required for sales and other reasons.

The Council believes the pattern of partnership between Blue Shield and Blue Cross for the protection of the public must be preserved. The basis of that pattern is that Blue Shield be responsible for medical services and Blue Cross be responsible for hospital services.

The Annual Banquet was well attended.

Meeting of October 29, 30

The Council met at the Mark Twain Hotel, Hannibal, on October 28 and 29, W. S. Sewell, M.D., Springfield, Chairman, presiding. Those present were Drs. Sewell, Donald M. Dowell, Chillicothe; W. F. Francka, Hannibal; R. O. Muether, St. Louis; Joseph C. Creech, Troy; J. Loren Washburn, Versailles; Richard H. Kiene, Kansas City; J. H. Summers, Lebanon; Ben M. Bull, Ironton; Victor B. Buhler, Kansas City; Carl F. Vohs, St. Louis; Jerome I. Simon, St. Louis; E. Royse Bohrer, Jefferson City; James R. Amos, Jefferson City; Messrs. John W. Noble, Kennett; Lemoine Skinner, St. Louis; Ray McIntyre, St. Louis; Tom R. O'Brien, St. Louis.

AMERICAN MEDICAL EDUCATION FOUNDATION

It was reported that the President's page in MISSOURI MEDICINE on the American Medical Education Foundation and the follow-up letter had obtained good results.

EDUCATION WEEK

An announcement by the American Medical Association that the week of April 23-29 would be termed Medical Education week was announced and it was suggested that Dr. James Murphy, chairman of A.M.E.F. for Missouri also be named chairman of this.

OPTOMETRIC ASSOCIATION REQUEST

A letter from the Optometric Association was presented and it was referred to the Committee on Conservation of Eyesight. Because of the illness of the Chairman of that Committee, it was decided that Dr. Theodore Sanders, St. Louis, be asked to serve as acting chairman for the purpose of calling a meeting of the Committee.

WOMAN'S AUXILIARY

A note of thanks to Dr. Sewell for his talk at the fall board meeting of the Woman's Auxiliary and to the Association for courtesies shown was read.

BOY SCOUTS DRIVE

Request for endorsement of a Boy Scouts' drive for funds made by Dr. Durward G. Hall, Springfield, was presented and on motion of Dr. Summers, endorsement was voted.

TREASURER'S REPORT

Dr. Simon reported on the finances of the Association stating that the financial position was satisfactory.

BUDGET COMMITTEE

The following Budget Committee was appointed by the Chairman and approved: Drs. Simon, Vohs, Buhler, Bull and Sewell. It was decided that the committee would meet on the evening prior to the next Council meeting, which probably will be held December 11.

FIELD SECRETARY'S REPORT

Mr. McIntyre reviewed meetings since the last Council meeting including county society meetings for which speakers had been furnished, special meetings he had attended as the Missouri Health Council, the Woman's Auxiliary fall board meeting, the Cancer Conference at Cape Girardeau, Association committee meetings; he reported on the exhibit at the State Fair and on several groups to which he had spoken. He reported on physicians who had located in outstate Missouri, at Moberly, Mexico, Marshall, St. Charles, Clarksville, Portageville and Bourbon. He called attention to the program set up for the year by the Greene County Medical Society, which included socio-medical subjects and suggested that more such programs be planned throughout the state. This was discussed by most of the Councilors present, it being the consensus of opinion that it was an excellent plan, but presents difficulties in carrying out because of the drain on manpower to furnish it and the apathy of the profession in wanting it. No action was taken but it was the feeling that all avenues possible should be used in informing the membership on socio-economic medical matters.

Past Presidents were guests at the Banquet.

COMMITTEE ON ALCOHOLISM

A report of the Committee on Alcoholism was presented and on motion of Dr. Buhler was approved.

COMMITTEE ON LABORATORY MEDICINE

A portion of the report of the Committee on Laboratory Medicine was presented. It was pointed out that this had been referred to the Committee on Hospital Physician Relations, which committee would give a later report. On motion of Dr. Dowell, the progress report of the Committee was approved in principle.

IMMUNIZATION PROGRAM

Dr. Amos spoke to the Council on the polio immunization program, asking them to be alert for any difficulties in carrying out the recommendations of the Committee on Infant and Child Care. He said that the first vaccine that had come through recently was released through regular drug channels, and that now about 50,000 cc. was retained for clinic use. The use of the free clinics which will be set up, the lack of demand on physicians in private practice for immunizations and their overstock of vaccine was discussed. It was pointed out that possibly the federal money was not needed by the state and Dr. Amos called attention to the criticism there would be if any children were not vaccinated in the face of funds being turned back. It was agreed that in view of the amount of vaccine available and the lack of demand, that age priorities should not be as restrictive. Dr. Amos was told he could use some county contacts that had been set up previously.

HOSPITAL LICENSING LAW

Dr. Amos presented problems in connection with the hospital licensing law. He suggested that more time be given to hospitals to comply with the standards set up. In connection with the hospital licensing law, the Hill-Burton plans were discussed and the diagnostic and treatment facilities that have been added, for which $118,000 is appropriated at the present time. It was felt that these were needed in few, if any, places but Dr. Amos pointed out that this was tied in with all Hill-Burton money and could not be turned back if the rest of the funds were not. Dr. Amos felt that there was no urgency at the moment but felt the Council should be conversant with the subject.

TRACHOMA PROGRAM

Dr. Amos said there had been difficulty in getting the trachoma program outlined as he felt it should be but that progress was being made in the program at present.

NATIONAL LEGISLATION

Attention was called to House Resolutions 9 and 10, allowing tax deductions to physicians for annuity insurance plans, it being pointed out that the A.M.A. has favored the resolutions and that they have a fair chance of passage.

H.R. 7225, cash disability payments to individuals totally and permanently disabled at age 50 was discussed, the trend toward socialized medicine, the increasing cost being stressed. Mr. O'Brien, Mr. McIntyre and Mr. Skinner told of A.M.A. meetings on this bill and the campaign the A.M.A. is planning. It was brought out that it is difficult to totally oppose such a measure and that probably the best method was to stress the rehabilitation phase. This will be discussed at the Boston A.M.A. session, Representative Tom Curtis of Missouri and Senator Byrd of Virginia having been asked to speak on it; also suggested materials in opposing the measure by the A.M.A. will be available by the time of the next Council meeting. On motion of Dr. Muether, Mr. Skinner was asked to write Dr. Lull, over the signature of the Council Chairman, relative to the material being prepared by the A.M.A.

JOINT LICENSURE BILL

It was stated that the Council had appointed the same committee on the study of the joint licensure bill but that the committee had not met as yet and would appreciate advice from the Council. It was pointed out that the A.M.A. House of Delegates declined the Cline report; also situations in several states were reviewed. It was felt that the committee should study further for any possible change and it

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was agreed that any change would have to be presented to the House of Delegates.

COMMITTEE ON INFANT AND CHILD CARE

Dr. Daniel B. Landau, Chairman, presented minutes and recommendations of the Committee on Infant and Child Care, the recommendations having been sent by the President to the members. He said that since the report Dr. Belden of the Division of Health had suggested that the ages include 1 to 14. Dr. Landau reported also on the Conference on Physicians and Schools held at Highland Park, October 12, 13 and 14. He pointed out that the conference brought out the need for physicians to make themselves available to schools but also called attention to the possibility of the school going too far in taking the place of the home and that some of the school programs should be promoted slowly and watched closely. On motion of Dr. Bull, the report was accepted.

A.M.A. HOUSE REFERRALS

Attention was called to matters which the A.M.A. House of Delegates had referred to component associations:

(a) the matter of grievance committees, which has been discussed by the Council with the feeling that the Council itself was sufficient to serve as such in Missouri.

(b) Civil Defense, in which Missouri has been more active than most states so far as the medical profession is concerned.

(c) automotive safety, and attention was called to the resolution of the Committee on Fractures. Dr. Kiene told of the study by the College of Surgeons, Committee on Trauma, and that they had found that the automotive industries were conducting greater study in this line than any other group. It was suggested that Mr. Skinner write letters to the Chrysler and Ford corporations approving of their work in this field.

COMMITTEE ON HOSPITAL PHYSICIANS RELATIONS

A report of the Committee on Hospital Physicians Relations was presented and on motion of Dr. Francka, it was accepted. In this connection, Mr. O'Brien reviewed some of the material referred to. He said that St. Louis Blue Shield is offering a new contract with $300 top surgical plan and 70 day hospital stay, not restricted to the yearly basis. He said that Blue Shield is working toward the possibility of a service contract, which was discussed briefly.

COMMITTEE ON EDITORSHIP

Dr. Francka presented the following recommendations of the special committee on editorship, which on his motion was adopted:

"Missouri Medicine has been published under the direction of the special committee, composed of Drs. Muether, Petersen, Francka and Sewell since January 1, 1955. The committee now wishes to make the following recommendations:

"That Dr. Charles R. Doyle, St. Louis, be appointed Editor, effective January 1, 1956, and that several Associate Editors be named to assist with this work.

"Further, that the following Committee on Publication be appointed: (Effective Jan. 1, 1956).

Dr. Charles R. Doyle, St. Louis, Chairman,
Dr. Richard Kiene, Kansas City,
Dr. C. G. Stauffacher, Sedalia,
Dr. R. O. Muether, St. Louis,
Dr. Ben M. Bull, Ironton.

"Every effort should be made by the Editor and his Associates, as well as the Committee on Publication, to improve the scientific content of Missouri Medicine and that the feature columns be continued and expanded if deemed practical."

DIAGNOSTIC AND TREATMENT CENTERS

The report given by Dr. Amos on Saturday on the regulations on diagnostic and treatment centers was further discussed; also the enforcement of the hospital licensing law. It was decided after discussion that the Council rather than a special committee should stay in close touch with the situation on the diagnostic and treatment centers. It was the feeling of the Council that there should be no untoward delay in the enforcement of the hospital licensing law. On motion of Dr. Muether, Mr. Skinner was asked to write Dr. Amos that the feeling of the Council is that the regulations should be complied with.

DR. FRANCKA THANKED

Dr. Sewell spoke for the Council in thanking Dr. and Mrs. Francka for their hospitality to the Council while meeting in Hannibal.

Meeting of December 11

The Council met at the Sheraton Hotel, St. Louis, December 11, 1955, with W. S. Sewell, M.D., Springfield, Chairman, presiding. Those present were Drs. Sewell, Donald M. Dowell, Chillicothe; W. F. Francka, Hannibal; R. O. Muether, St. Louis; Joseph C. Creech, Troy; J. Loren Washburn, Versailles; C. G. Stauffacher, Sedalia; Richard H. Kiene, Kansas City; J. H. Summers, Lebanon; Ben M. Bull, Ironton; Victor B. Buhler, Kansas City; Carl F. Vohs, St. Louis; E. Royse Bohrer, Jefferson City; Jerome I. Simon, St. Louis; Durward G. Hall, Springfield; Joseph C. Peden, St. Louis; Eugene Robichaux, Excelsior Springs; T. E. Sanders, St. Louis; Messrs. John Buckner, Springfield; Lemoine Skinner, Sol Gross, Jordan Singleton, Ray McCarthy, Hollister Smith, Ray McIntyre, T. R. O'Brien, St. Louis.

FORD AND CHRYSLER REPLIES

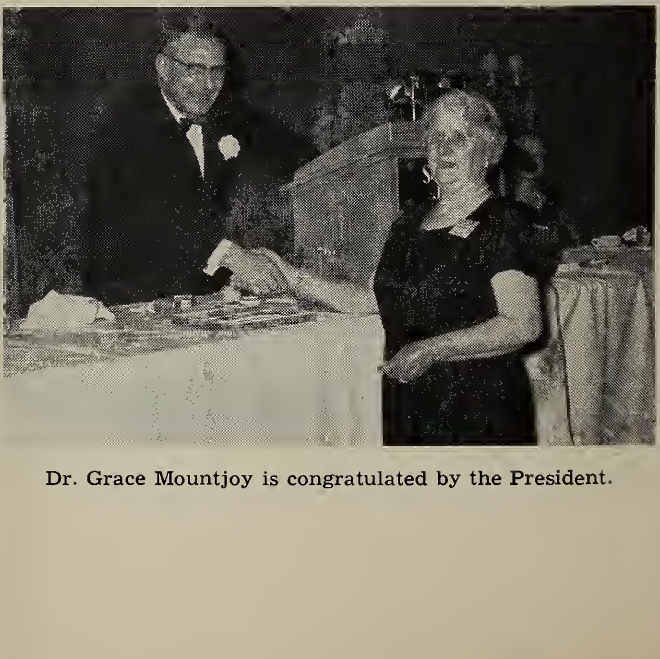
Replies from the Ford and Chrysler Corporations to a letter regarding safety devices in connection with the automotive industry were read. The Chrysler Corporation asked for the name of the chairman of the Committee on Fractures in order to keep in touch with that Committee.

STATE CHAMBER OF COMMERCE

On motion of Dr. Dowell, it was voted to continue membership in the Missouri State Chamber of Commerce.

"HUMBLEST OF PATIENTS"

A plaque printed by the Society for Medical Research on comparison of medical abilities of today with those of former years, was presented. It was



Dr. Grace Mountjoy is congratulated by the President.

stated that the reprint would appear in the January issue of Missouri Medicine.

A.M.A. CLINICAL SESSION

Drs. Peden and Hall reported on the Boston session of the A.M.A., pointing out resolution opposing H.B. 7225; request to states to poll membership on wishes on Social Security for the Board of Trustees; resolutions on medical practice; accreditation of hospitals; general practitioners in relation to hospital staffs; setting up of a committee to guide mediation or grievance committees of states; objection to separating any branch of medicine into technical and medical, as pathology; recommendation that the State Journal Advertising Bureau be separated from the A.M.A.; the 1958 session to go to Minneapolis; proposed revisions of medical ethics; the Iowa suit decision being received during the session; report of the Sears Roebuck Foundation on work of establishing medical facilities in remote sites.

FIELD SECRETARY'S REPORT

Mr. McIntyre reported the following meetings since the last Council meeting: Missouri Health Council, October 31; Jefferson County, Nov. 1; Clay County, Nov. 3; Committee on Tuberculosis, Nov. 6; Aurora, Nov. 8; Joplin, Nov. 9; Nevada, Nov. 10; Missouri Heart Association at Camdenton, Nov. 10 and 11; Sedalia, Nov. 16; Columbia, Nov. 17; Pike County, Nov. 22; Franklin-Gasconade-Warren, Nov. 29; Committee on Conservation of Eyesight, Dec. 1; Chillicothe, Dec. 8; and called attention to the Missouri Hospital Association meeting in St. Louis Dec. 12-14; and a meeting at Rolla on Dec. 15.

He reported that the survey of the medically indigent had been completed and the report would be studied by an advisory committee and the executive committee of the Missouri Health Council at a meeting on January 8, and that the Committee on Rural Medical Service of the Association would meet on January 22 to study the report of this advisory committee. He gave the personnel of the advisory committee as follows: Dr. James R. Amos, Jefferson City; Mrs. Jess Bowman, Fairfax; Dr. D. W. Bryant, Kansas City; Dr. James W. Colbert, Jr., St. Louis; Mr. Rudolph T. Danstedt, St. Louis; Mr. Hubert Harris, Jefferson City; Miss Bertha Hochuli, Columbia; Miss Susan Jenkins, Kansas City; Mr. A. Clifford Jones, Clayton; Mr. Harry E. Panhorst, St. Louis; Dr. Wallace M. Pearson, Kirksville; Dr. Roscoe L. Pullen, Columbia; Dr. A. E. Spelman, Smithville; Mr. Morris Thompson, Kirksville; Mr. Frank W. G. Wheeler, Springfield.

H.R. 7225

Attention was called to the resolution passed by the A.M.A. opposing H.R. 7225, a letter Dr. Hess is writing to all members, and to the articles which have been carried in Missouri Medicine. A breakfast given by the Association for Representative Thomas B. Curtis, during the Boston session and to which A.M.A. officials came and conferred with Representative Curtis, was reported.

TREASURER'S REPORT

Dr. Simon gave the report of the Treasurer, showing that the activities of the Association were within the 1955 Budget.

REPORT OF COMMITTEE ON CONSERVATION OF EYESIGHT

Dr. Sanders, acting chairman of the Committee, reported on a meeting of the Committee, at which the relationship of opthalmologists, optometrists and dispensing opticians was discussed, pointing out that resolutions adopted by the national optometrists' Association appeared to indicate a desire to restrict ophthalmologists from refraction and prevent opticians from the making of lenses and fitting glasses; also to enter the field of pathology of the eye. A bill in the last Missouri legislature was reviewed, attention being called to the original broadening of the definition of optometry. It was pointed out that while this bill failed to pass, others will probably be introduced in future sessions. The Committee recommended to the Council, on the letter from the Missouri Optometric Association requesting a meeting with the Council and which was referred to the Committee, that a subcommittee of the Committee selected by the Chairman of the Council, together with the President and Executive Secretary of the Association, meet with the organization.

On motion of Dr. Vohs the report of the Committee was accepted.

On motion of Dr. Muether, it was voted that the recommendation of the Committee to meet for exploration of mutual problems be approved.

VA HOSPITAL REMOVAL FROM EXCELSIOR SPRINGS

Dr. Robichaux presented a resolution adopted by the Clay County Medical Society opposing the closing of the VA Tuberculosis Hospital at Excelsior Springs, on the premise that tuberculosis cases should be treated there releasing other beds in other hospitals for much needed psychiatric care. After discussion, it was felt that the Council, while sympathetic, did not have the power to take action, it being both a local and a national problem, but not a state problem. The Society was commended for its alertness in the situation.

BUDGET

Dr. Simon, chairman of the Committee on Budget, presented the following budget, with the recommendation that the dues of the Association would have to be raised in view of the increased activities connected with the single licensure bill and the increase in number of meetings that it would cause.

Salaries	$ 42,180.00
Journal Expense	31,300.00
Postage, Printing & Stationery	5,000.00
Travel, Executive Secretary	1,300.00
Travel, Field Secretary	2,800.00
Telephone & Telegraph	1,800.00
Office Rent & Light	3,200.00
Meetings, Committee Expense	25,800.00
Defense	500.00
Scientific & Postgraduate Work	1,000.00
Woman's Auxiliary	1,200.00
Public Relations	7,500.00
Insurance Annuity	2,700.00
General Expense	2,500.00
Furniture & Fixtures	500.00
Social Security Tax	600.00
Legal Expense	2,200.00
Total	$132,080.00

Dr. Bohrer moved that the Council recommend to the House of Delegates that the dues be raised $10.00 for 1957 and on vote this was passed.

CIVIL DEFENSE

A letter from Dr. Hungate suggesting that the Committee on Civil Defense be made a permanent committee was read. On motion of Dr. Vohs it was voted to refer this to the Committee on Constitution and By-Laws for submission to the House of Delegates.

IOWA SUIT

The Iowa suit was discussed briefly, it being pointed out that the decision indicated both facts and law in favor of physicians; that the hospitals may take the suit to the Supreme Court; that it may have some effect on the Blue Cross and Blue Shield coverages.

NEXT MEETING

It was decided that the next meeting of the Council would be set for about three weeks before the Annual Session.

W. S. Sewell, M.D., *Chairman*

Supplemental Council Report

W. S. Sewell, M.D., Springfield: Mr. Speaker, Members of the House of Delegates: The report of the Council, as printed in the booklet, Reports of Officers, Committees and Council, summarizes the activities of the Council up to the date of the last meeting, which was held in St. Louis March 24 and 25. At that time, a number of important matters were considered and reports of several committees were received.

I would like at this time to report to the House briefly on these matters so that the Speaker may refer them to an appropriate reference committee if desirable. Many of these reports are in the form of resolutions.

SINGLE LICENSURE

In accordance with the instructions of the House of Delegates at the 1955 Annual Session to the Council to proceed with the study of single licensure for practitioners of health care in Missouri, the following report of the special subcommittee was approved by the Council:

It is the recommendation of the Special Committee on Licensure, that the Council recommend to the House of Delegates that it reconsider the mandate directing the Council to define a policy for solving the problem of cultism in Missouri.

Such a policy was approved by the House of Delegates in 1954 and was incorporated in legislation, which failed of passage in the 1955 session of the General Assembly. The one reason for the failure that strikes the Council most forcibly is the indifference that many members of the medical profession showed toward the proposal. A number of doctors, indeed, gave evidence of positive hostility to the measure.

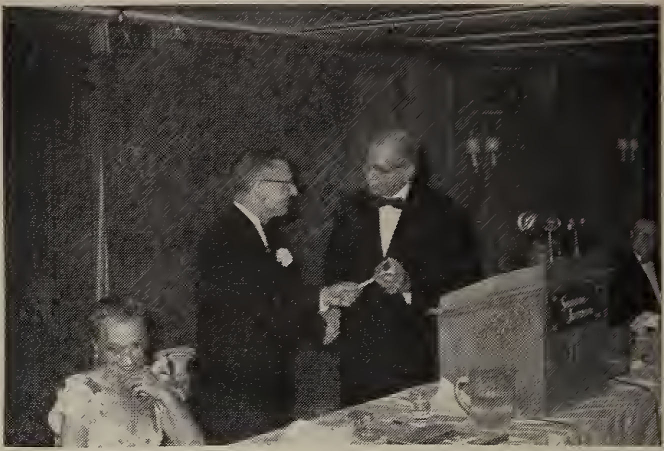
During the last year, the Council and its special committee have continued their study. Their conclusion is that the original proposal is still in substance, the only one to be recommended as an intelligent and final solution to the problems of multiple licensure and cultism in Missouri.

The Council is prepared to authorize and conduct a vigorous campaign to enact legislation similar to that introduced in the last General Assembly.

It cautions the House, however, that such effort cannot succeed without wholehearted approval and active support of the vast majority of the profession in Missouri. Many strong and active interest groups are opposed to the proposal, while much of the public is indifferent. Unless we have something like unanimity in our own ranks, we shall have no hope of success.

At the same time the growing strength of cultist groups in Missouri is still a matter for serious concern. The Chiropractors are engaged in a constant and strenuous campaign for the extension of their practice rights. There is, moreover, a growing group of naturopaths who are seeking to become licensed.

The decision on our future course is now for the House of Delegates to make, in the light of the facts on both sides of the situation. If the House believes the doctors of Missouri want to do something about cultism and will be willing to work hard to this end, then the Council recommends that a poll be taken of the entire membership to determine the extent of their support and, if the result is favorable, that our previously approved policy be reaffirmed. If the House has doubts on the subject, the Council recommends it withdraw its directive on cultism and that the matter be dropped.



Dr. Forgrave accepts the gavel for Dr. Vohs.

HOUSE RESOLUTION 7225

The Council wishes to present the following resolution on House Resolution 7225:

Whereas, House Resolution 7225, which provides in part for cash payments for totally and permanently disabled persons at age 50 as part of the Social Security Program, has been widely publicized in the medical press, and

Whereas, Physicians have been urged to contact members of Congress to oppose these provisions, and

Whereas, This legislation, after passing the House of Representatives, is now under consideration by the Senate Committee on Finance, therefore be it

Resolved, That the House of Delegates recommend that all members of the Missouri State Medical Association write personal letters to their representatives in Congress opposing this legislation.

HOUSE RESOLUTION 9429

The Council submits the following resolution on House Resolution 9429, which deals with provision of medical care for the dependents of Armed Services personnel:

Whereas, The legislation presently pending in Congress known as House Resolution 9429 is in conformance with the wishes and actions of the American Medical Association House of Delegates, in that provision is made to provide medical care for the dependents of Armed Services personnel at the local level on the basis of freedom of choice of physician, and

Whereas, Programs for administering such medical care may be similar to such plans as the Veterans Home Town Care program, and

Whereas, The Blue Cross-Blue Shield Plans of Missouri provide a ready medium for administering such a program, therefore be it

Resolved, That the House of Delegates recommends that the Council be authorized to urge the Blue Cross and Blue Shield Plans of Missouri to make the necessary arrangements to implement the legislation covering medical care for the dependents of Armed Services personnel.

WORKMEN'S COMPENSATION

The Council approved the following resolution on Workmen's Compensation, for the attention of the House:

Whereas, The American Medical Association House of Delegates, in December, 1955, made the following recommendation: ". . . that the appropriate official medical organizations in each workmen's compensation jurisdiction examine and, where necessary, seek adoption of statutory provisions to the end that all patients subject to workmen's compensation laws have the right to accept physicians' services provided by employers or to select another attending physician from a register of all other physicians in the community willing and qualified to perform the essential services," therefore be it

Resolved, That the question of seeking such a change in the state law of Missouri be brought to the House of Delegates for their recommendation.

POLL OF MEMBERS ON SOCIAL SECURITY COVERAGE

As you know, we recently polled our entire mem-

GO

Where You Will!

TO a sandy beach or snow-capped peaks . . the wide open spaces or crowded city places . . . wherever the vacation path leads, travelers need prepaid health care coverage that protects them anywhere.

Blue Cross and Blue Shield members enjoy this assurance; their membership card is a valued and respected identification to hospitals and doctors wherever the need arises. The Inter-Plan Bank gives Blue Cross members hospitalized away from home the full service benefits of their host Plan. Emergency benefits protect the traveler outside the country. And Blue Shield pays licensed physicians anywhere.

This "go everywhere" feature is one reason so many millions put their confidence in Blue Cross and Blue Shield—America's most popular health care prepayment plans.

BLUE CROSS
BLUE SHIELD

NON-PROFIT HOSPITAL-MEDICAL-SURGICAL PLAN SPONSORED BY DOCTORS

KANSAS CITY
SAINT LOUIS

bership on the question of whether physicians favor coverage under the Social Security program. Dr. Buhler reported briefly on the results of that poll in his address before the House.

Printed tabulations of the results are also being made available to the House, as part of this report.

DUES

The following report is submitted for the recommendations of the House:

The Budget Committee has pointed out to the Council that increased activities in the field of public relations and informational programs for members in professional relations has resulted in a budget for the year 1956 which is $16,000 in excess of expected income.

The Council recommends to the House of Delegates that the dues of Association members be increased by the amount of $10 a year, for a total of $35 a year, beginning in 1957.

CORPORATE PRACTICE OF MEDICINE

Last year, Dr. Buhler, in his address to the House, brought up the growing tendency for the formation of programs tending toward corporate practice of medicine.

The Council has grown increasingly alarmed at this tendency to change the practice of medicine as we have known it, and to deviate from some of the traditional patterns which have served medicine and the public well.

Both Dr. Buhler and Dr. Vohs referred to these trends in their addresses to the opening session of the House.

The Council wishes to advise the House that it will give continued attention and study to the situation, and make such future reports as seem appropriate.

The President's two sisters were his guests at the session.

BLUE SHIELD SERVICE BENEFITS PROGRAM

The Council submits the following recommendation for the approval of the House:

The Blue Shield Plan of St. Louis, in addition to various other organizations and individuals, has brought to the attention of the Council the need for establishing a program of full-payment benefits for hourly rated employees, therefore the Council recommends that the House of Delegates approve, in principle, a service benefits program for Blue Shield of St. Louis, and that the House of Delegates recommend that, as soon as practical, the Blue Shield Plan of St. Louis take a tentative proposal for such a program with a realistic income level to the attention of the component county medical societies for their approval.

The Speaker referred the published report of the Council to the Reference Committee on Reports of Officers as well as the portion of the supplementary report dealing with single licensure, Blue Shield and dues; he referred the portion of the supplementary report dealing with the poll on Social Security, H.R. 7225, H.R. 9429 and Workmen's Compensation to the Reference Committee on Resolutions; and the portion dealing with the corporate practice of medicine to the Reference Committee on Medical Education and Public Welfare.

Victor V. Buhler, M. D., Kansas City, President, announced the appointment of the Committee on Nominations as follows:

Committee on Nominations

John R. Dixon, M.D., Brookfield.
B. L. Murphy, M.D., Hannibal.
Louis H. Kohler, M.D., St. Louis.
James F. Dowd, M.D., St. Louis.
Byron M. Stuart, M.D., Boonville.
George A. Aiken, M.D., Marshall.
Gerald L. Miller, M.D., Kansas City, Chairman.
W. W. Tillman, M.D., Springfield.
W. R. Lytle, M.D., Rolla.
J. H. Trolinger, M.D., Jackson.

There being no unfinished business and no new business introduced, on motion duly seconded and passed, the House of Delegates recessed at 3:15 p. m. until Monday, April 9, at 4:00 p. m.

MONDAY, APRIL 9, 1956

The House of Delegates convened at 4:00 p. m., in the Crystal Room, Sheraton-Jefferson Hotel, April 9, with Joseph L. Fisher, M.D., St. Joseph, Speaker, presiding.

Henry Allen, M.D., St. Louis, reported for the Committee on Credentials.

Guy N. Magness, M.D., University City, reported for the Reference Committee on Amendments to the Constitution and By-laws.

REPORT OF THE REFERENCE COMMITTEE ON AMENDMENTS TO THE CONSTITUTION AND BY-LAWS

The Reference Committee on Amendments to the Constitution and By-laws approved the report of the standing Committee on Constitution and By-laws as it was printed.

Mr. Speaker, I move the adoption of this report.

On second, the report was adopted.

Daniel L. Sexton, M.D., St. Louis, reported for the Reference Committee on Resolutions.

REPORT OF THE REFERENCE COMMITTEE ON RESOLUTIONS

The Reference Committee on Resolutions, composed of J. P. Ferguson, Robert Bristow, H. W. Benoit, W. L. Allee and Daniel L. Sexton, met and considered the resolutions as presented. House Resolution 9429 presented by the Council is as follows:

Whereas, The legislation presently pending in Congress known as House Resolution 9429 is in conformance with the wishes and actions of the American Medical Association House of Delegates, in that provision is made to provide medical care for the dependents of Armed Services personnel at the local level on the basis of freedom of choice of physician, and

Whereas, Programs for administering such medical care may be similar to such plans as the Veterans Home Town Care program, and

Whereas, The Blue Cross-Blue Shield Plans of Missouri provide a ready medium for administering such a program, therefore be it

Resolved, That the House of Delegates recommends that the Council be authorized to urge the Blue Cross and Blue Shield Plans of Missouri to make the necessary arrangements to implement the legislation covering medical care for the dependents of Armed Services personnel.

Not all discussion in the House was formal.

Mr. Speaker, I move the adoption of this resolution.

On second, the resolution was adopted.

Dr. Sexton: House Resolution 7225 presented by the Council as a resolution reads as follows:

Whereas, House Resolution 7225, which provides in part for cash payments for totally and permanently disabled persons at age 50 as part of the Social Security Program, has been widely publicized in the medical press, and

Whereas, Physicians have been urged to contact members of Congress to oppose these provisions, and

Whereas, This legislation, after passing the House of Representatives, is now under consideration by the Senate Committee on Finance, therefore be it.

Resolved, That the House of Delegates recommend that all members of the Missouri State Medical Association write personal letters to their representatives in Congress opposing this legislation.

Mr. Speaker, I move the adoption of this resolution.

On second, the resolution was adopted.

Dr. Sexton: In reference to the poll of members on Social Security coverage, it is as follows:

Whereas, An overwhelming number of physicians answering the poll on Social Security coverage expressed its opposition to compulsory coverage, and

Whereas, Other pertinent information was obtained by this poll, be it

Resolved, That the information gathered from this poll be passed on to the American Medical Association for their information, and be it further

Resolved, That the American Medical Association be instructed to oppose legislation contrary to the wishes of the majority.

Mr. Speaker, I move the adoption of this resolution.

On second, the resolution was adopted.

Mr. Speaker, I move the adoption of the report as a whole.

On second, the report was adopted.

Henry Durst, M.D., Fulton, reported for the Reference Committee on Miscellaneous Affairs.

REPORT OF THE REFERENCE COMMITTEE ON MISCELLANEOUS AFFAIRS

The Reference Committee on Miscellaneous Affairs met in Room 2 at the Sheraton-Jefferson Hotel, Sunday, April 8, at 3:45 p. m., with all members present. The reports of the committees as published in the Reports of Officers and Committees were studied.

The report of the Committee on Defense was unanimously approved.

The report of the Committee on the Study of Cardiac Diseases was approved as read.

The report of the Committee on Infant and Child Care was approved.

The report of the Committee on Tuberculosis was approved.

The report of the Committee on Veterans Medical Care was approved.

The report of the Committee on Control of Venereal Disease was approved with the recommendation that the educational programs be continued.

The report of the Committee on Industrial Health was approved.

The report of the Committee on Fractures was approved.

The report of the Committee on Civil Defense was approved with the recommendation that this be made a permanent committee.

The report of the Committee on Cancer was approved.

The report of the Committee on Conservation of Eyesight was approved.

The report of the Committee on Diabetes was approved with the recommendation that the emphasis on the detection of diabetes be placed on a local level, insofar as is possible.

This Reference Committee on Miscellaneous Affairs commends the Standing Committees and members for their excellent work in the last year and wishes to call this fact to the attention of the various members of the Missouri State Medical Association.

Mr. Speaker: I move that the report of the Reference Committee on Miscellaneous Affairs be adopted.

On second, the report was adopted.

J. H. Trolinger, M.D., Jackson, gave the report of the Reference Committee on Medical Education and Public Welfare.

REPORT OF THE REFERENCE COMMITTEE ON MEDICAL EDUCATION AND PUBLIC WELFARE

The report of the Committee of American Medical Education Foundation and Medical Education Week has been approved as presented to the House of Delegates.

The Supplemental Report of the Council has been approved as presented to the House of Delegates.

The report of the Committee on Medical Education and Hospitals has been approved as published.

The report of the Committee on Health and Public Instruction has been approved as published.

The report of the Committee on Physical Medicine and Rehabilitation has been approved as published.

The report of the special Committee on Hospital and Professional Relations has been approved as published. Your Reference Committee, however, is deeply impressed by the changing situation developing in the relationship between physicians and their hospitals and Blue Cross and Blue Shield Plans.

The Committee is also impressed by the increasing trend toward the corporate practice of medicine as referred to in the Supplemental Report of the Council. Your Reference Committee regards this trend as constituting a grave threat to the traditional patterns of the practice of medicine in Missouri. If Blue Shield be truly the doctors' plan for protection of the health for the people of Missouri, then it should reflect the doctor's concept of how the best possible medical care can be brought to the greatest number of people at the lowest possible cost.

The Council has previously pointed out the tendency to deviate from some of the traditional patterns of the practice of medicine which have served both Missouri medicine and the public well in the past, and our Council is justly alarmed by the tendency of corporate practice of medicine—that is, the provision and collecting for professional services such as laboratory services, anesthesiology, radiology and physical medicine by corporations and hospitals rather than individual practitioners.

It is also hoped that consideration will be given to widen Blue Shield coverage to include such benefits as office and house calls, particularly in those rural areas of Missouri where hospital facilities are not readily available.

Mr. Speaker, I move the adoption of this report.

On second, the report was adopted.

William W. Gist, M.D., Kansas City, reported for the Reference Committee on Reports of Officers.

REPORT OF THE REFERENCE COMMITTEE ON REPORTS OF OFFICERS

The Reference Committee on Reports of Officers met in the Crystal Room, Sheraton-Jefferson Hotel, at 4:15 p. m., Sunday, April 8, with Officers and other interested members. Consideration was given to all of the reports as printed in the booklet, "Reports of Officers and Committees," and the Supplementary Report of the Council.

The address of the President, Dr. Buhler, and the address of the President-elect, Dr. Vohs, as read by Dr. Bohrer, were commended by the Committee and were approved by it wholeheartedly. The Committee wishes to amplify the feeling of the House of Delegates regarding the unfortunate illness of the President-elect. The Committee also wishes to express its appreciation and best wishes to the retiring President, Dr. Buhler.

The reports of the Secretary and Executive Secretary are entirely factual and are approved by the Committee.

The Supplementary Report of the Council and its recommendation for the Blue Shield Plan of St. Louis and its projected service benefits program, was considered. It was felt that this plan was most necessary and urgent and should be approved in principle, immediately. The Committee, therefore, heartily endorsed the acceptance of the Supplementary Report of the Council relative to the preparation of a service benefit program for the consideration of county medical societies.

The report of the Committee on Anesthesia was read and accepted in its entirety.

The recommendation of the Budget Committee to increase the dues of the Association members to a total of $35 a year beginning in 1957 was read and approved.

This reference Committee has reviewed the Report of the Council and the Supplemental Report pertaining to the single licensure of all persons who render health care to Missouri. In the Supplemental Report of the Council and in the Report of the President of the Association, it has been pointed out that there is apathy on the part of the profession toward the single licensure proposal and in some instances, active opposition. The Committee, therefore, recommends that the Council again present the facts concerning single licensure to the membership in an effort to obtain greater understanding and knowledge of the basic problem. After this educational effort the Council should attempt to secure from the membership an expression of their desire for further action through any means deemed advisable including a direct or indirect poll of the membership to determine the extent of their support. If the result is favorable, then the previously approved policy of the Council should be reaffirmed and the Council should reintroduce legislation at an appropriate time similar to that previously proposed.

Mr. Speaker, I move the adoption of this report.

On second, the report was adopted.

Walter S. Sewell, M.D., Springfield reported for the Council.

REPORT OF THE COUNCIL

The Council met at 5:00 p. m., at the Sheraton-Jefferson Hotel on April 8, 1956, to consider material referred to it by the House of Delegates. Members of the Association appeared before the Council to speak on the two reports the Council was asked to consider, the Report of the Committee on Laboratory Medicine and the Report of the Committee on Alcoholism.

The Council, upon motion duly seconded, approved the Report of the Committee on Laboratory Medicine.

The Council, upon motion duly seconded, approved the Report proper of the Committee on Alcoholism and approved the recommendation that the Committee continue as a committee and continue its studies, but disapproved the recommendation dealing with legislation.

Mr. Speaker, I move the adoption of this report.

On second, the report was adopted.

SPEAKER: The floor is now open for new business.

F. B. MATTESON, M.D., Grant City: Mr. Speaker, I have a resolution to submit.

WHEREAS, There are multitudes of health and accident insurance companies doing business in Missouri, and

WHEREAS, At present all have somewhat similar but different claim forms that are necessarily completed in the physician's office, therefore be it

Resolved, That appropriate action be taken by the society, or a committee thereof, to simplify and standardize such claim forms, to the benefit of all concerned.

The Speaker referred this resolution to the Reference Committee on Resolutions.

The place and time of meeting of the Reference Committee on Resolutions was announced.

Upon motion, duly seconded, the House of Delegates adjourned at 4:30 p. m.

WEDNESDAY, APRIL 11, 1956

The House of Delegates convened at 1:30 p. m., April 11, 1956, in the Crystal Room, Sheraton-Jefferson Hotel, St. Louis, with the Speaker, Joseph L. Fisher, M.D., St. Joseph, presiding.

Mr. Tom R. O'Brien read the roll call which showed a quorum present.

Upon motion, duly seconded, the reading of the minutes was dispensed with.

Walter W. Tillman, M.D., Springfield, nominated Walter S. Sewell, M.D., Springfield, for President-Elect.

Upon motion the Secretary was instructed to cast the unanimous ballot of the House of Delegates for Walter S. Sewell, M.D., Springfield, for President-Elect. The Secretary cast the unanimous ballot of the House of Delegates for Dr. Sewell for President-Elect and the Speaker declared Dr. Sewell so elected.

Dr. Sewell was nominated as President-elect.

DR. SEWELL: Mr. Speaker, Members of the House of Delegates, I thank you from the bottom of my heart. I do not think I ever was as badly scared except once, and that was the time that I married Lulu Brown. I do not know how to thank you. So far as I know, I do not have an enemy in the whole State of Missouri, and I appreciate it. I accept this office of President-elect of the Missouri State Medical Association with gratitude and humility. I will try to do justice to all. I will serve you to the best of my ability. I have enjoyed my activities as a delegate and as a Councilor. I have always tried to practice good medicine, I have

Dr. Sewell addressed the House briefly.

always tried to make the practice of medicine more efficient and always remember the general public who depend upon us so much for good medical care.

Last night we saw the Past Presidents stand up and be counted. I admired them. I had a strange feeling. The gentlemen still have bright eyes, they are still proud, and they are still glad that they had something to do with the making of this great organization that we have, the Missouri State Medical Association. And do not forget the fifty year men. I admired them. You remember they served their communities for fifty years. They have also had a great part in making this a wonderful organization. I have seen nineteen presidents elected and not a bad one in the whole group. I hope that all the older men continue to function, continue to work to keep this and make this Missouri State Medical Association the best in the United States.

The young men, the advice I have for you is to go back to your community and work harder than ever before. Remember, this is your organization. You have stock in it. You are the owners. You are the ones that make it. Work at it, not only just attending your medical meetings and your staff meetings, but take part in all of the affairs that your community takes part in. That includes sports, civic activities of any kind, and take part in them not as a doctor but as one of the community. In other words, be a good citizen in your community. As a result of that, you are going to make friends for the Missouri State Medical Association. It is up to you, the younger ones, and you are just as important as the older ones, but if you last night could see what I saw in the Past Presidents, I think it will spur you on to help more, put more into it, and I only hope that a year from now when I become your President that I can do half as well as the others.

My wife has had a great deal to do with this. She has been understanding. With all the bad faults and bad habits I have, Mrs. Sewell has always helped me, and she has forgiven me my bad habits and has carried on. Our wives enter into this picture a great deal. We are individuals and our wives are the same way. You can almost pick a doctor's wife. They are understanding. When you come home in the evening and you are a little grouchy and a little grumpy, she understands that mood. You have had a hard day. You have lost a patient or something has gone wrong. She doesn't say much to you; she leaves you alone and doesn't ask you what the trouble is. She tells the youngsters to go to bed. When you get a nice evening meal which she has prepared for you, you warm up a little bit after a while and you tell her that Mrs. Jones died or what your troubles are and she understands. That is the understanding wife.

Next year I will be your President; I will be your servant and I want you to feel you are perfectly free at any time to come and talk to me. After all, it is your organization and you have an interest in it, and I will assure you that I will do my best to do justice to all and serve you to the best of my ability. Again, I thank you from the bottom of my heart.

Gerald L. Miller, Kansas City, reported for the Nominating Committee.

REPORT OF THE NOMINATING COMMITTEE

For Vice Presidents: Victor E. Scherman, M.D., St. Louis; R. E. Breuer, M.D., Newburg; W. J. Shaw, M.D., Fayette.

For Delegates to the American Medical Association: Durward G. Hall, M.D., Springfield; alternate, Guy N. Magness, M.D., University City. H. E. Petersen, M.D., St. Joseph; alternate, J. Loren Washburn, M.D., Versailles.

For Speaker of the House of Delegates: Joseph L. Fisher, M.D., St. Joseph. Vice Speaker, O. P. Hampton, M.D., St. Louis County.

On motion, duly seconded, these officers were declared elected.

The Secretary announced the following reports of election of Councilors: First District, Donald M. Dowell, M.D., Chillicothe; Third District, R. O. Muether, M.D., St. Louis; Fifth District, James W. Allee, M.D., Columbia; Seventh District, Ralph Perry, M.D., Kansas City; Ninth District, J. H. Summers, M.D., Lebanon.

Daniel L. Sexton, M.D., St. Louis, gave the report of the Reference Committee on Resolutions.

REPORT OF THE REFERENCE COMMITTEE ON RESOLUTIONS

The Reference Committee on Resolutions met on Monday afternoon, April 9, to consider several resolutions which were introduced at the House of Delegates that afternoon.

The first of these, a resolution introduced by Frank B. Matteson, Grant City, concerning health and accident insurance claim forms and requesting that the Missouri State Medical Association or committee thereof take action to simplify and standardize such claim forms, was unanimously approved by the Committee.

Mr. Speaker, I move the adoption of this portion of the report.

On second, this portion of the report was approved.

Dr. Sexton: A resolution on Workmen's Compensation contained in the Supplemental Report of the Council was considered and it was the unanimous decision of the Committee that the resolution not be adopted, but that it be referred to the standing Committee on Industrial Health for further study.

After discussion by Dr. Sexton, he moved the adoption of this portion of the report. The motion was seconded.

Discussion followed by Victor E. Scherman, M.D., St. Louis; H. W. Benoit, M.D., Kansas City; O. P. Hampton, M.D., St. Louis; John A. Growdon, M.D., Kansas City, and Daniel L. Sexton, M.D., St. Louis.

John A. Growdon, M.D., Kansas City, moved that the rules be suspended for the admission of new business in the form of a revised resolution on Workmen's Compensation.

On second, this was voted.

John A. Growdon, M.D., Kansas City, presented the following resolution:

Whereas, The American Medical Association House of Delegates, in December 1955 made the following recommendation: ". . . that the appropriate official medical organizations in each workmen's compensation jurisdiction examine and, where necessary, seek adoption of statutory provisions to the end that all patients subject to workmen's compensation laws have the right to accept physicians' services provided by employers or to select another attending physician from a register of all other physicians in the community willing and qualified to perform the essential services," and

Whereas, The House of Delegates of the Missouri State

> Medical Association has considered a resolution of the Council seeking such a change in the state laws of Missouri, and
>
> WHEREAS, The Missouri State Compensation laws do not provide for examination and qualification of physicians relative to the care of compensation patients, and
>
> WHEREAS, Other deficiencies in the State Workmen's Compensation laws are known to exist, therefore be it
>
> *Resolved,* That the House of Delegates of the Missouri State Medical Association instruct the Council to establish a committee for the study of this problem, and to submit a report of their findings and recommendations to the House of Delegates at its next regular annual session.

On motion, duly seconded, the resolution was adopted.

On motion, duly seconded, the report of the Reference Committee on Resolutions was adopted as amended by the substitute resolution on workmen's compensation submitted by Dr. John A. Growdon.

On motion of Guy N. Magness, M.D., University City, duly seconded, the rules were suspended for the submission by Dr. Magness of a resolution dealing with the Salk vaccine program, as follows:

> WHEREAS, The administration of the Salk Vaccine Program has been difficult because of circumstances beyond the control of anyone, and
>
> WHEREAS, There has been a minimum of confusion in connection with the Salk Vaccine Program in the State of Missouri, and
>
> WHEREAS, The progressive way in which the program has been administered in Missouri has been due greatly to the understanding and cooperation of the Missouri Division of Health, with the result that all groups have shared fairly in the supplies of vaccine alloted to Missouri, therefore be it
>
> *Resolved,* That the House of Delegates of the Missouri State Medical Association go on record as expressing their appreciation of the work of James R. Amos, M.D., Director of the Missouri Division of Health, and E. A. Belden, M.D., Director of the Bureau of Communicable Diseases.

On motion, duly seconded, the resolution was adopted.

William W. Gist, M.D., Kansas City, expressed appreciation to the St. Louis Medical Society and the St. Louis County Medical Society for their hospitality during the session and invited the Missouri State Medical Association to hold its 99th Annual Session in Kansas City.

The Council reported on work during the year.

On motion, duly seconded, the invitation was accepted.

The Speaker asked the Secretary to read the appointment to committees made by Carl F. Vohs, M.D., President.

APPOINTMENTS TO COMMITTEES—1956

Scientific and Postgraduate Work: Richard Kiene, Kansas City, Chairman (to fill unexpired term of Arthur Smith, resigned); M. Pinson Neal, Columbia. Associate Members: Frank R. Daley, Hamilton; John McDaniel, St. Joseph; Charles F. Wilson, Cape Girardeau; Hector Benoit, Kansas City; Eugene Bricker, St. Louis; Charles Martin, St. Louis; Wyeth Hamlin, Palmyra.

Defense: C. E. Hyndman, St. Louis, Chairman; Joseph Webster, Kansas City; Roland Kieffer, St. Louis.

Public Policy and Public Relations: Jerome I. Simon, St. Louis, Chairman; Thompson E. Potter, St. Joseph; W. D. Chute, Moberly; Russell J. Crider, St. Charles; Byron M. Stuart, Boonville; Rolla B. Wray, Nevada; Harry C. Lapp, Kansas City; O. B. Crawford, Springfield; H. W. Carrington, Lebanon; J. J. Bredall, Perryville.

Medical Education and Hospitals: Ralph R. Coffey, Kansas City, Chairman; Harry K. Purcell, St. Louis; Kenneth Glover, Mount Vernon; John J. Modlin, Columbia.

Cancer: Joseph L. Fisher, St. Joseph, Chairman; George A. Carroll, St. Louis. Associate Members: George O. Miles, Kansas City; Frederick J. McCoy, Kansas City; C. W. Meinershagen, Jefferson City; Byron E. Watts, Jefferson City; Charles E. Lockhart, Springfield; John J. Modlin, Columbia.

Medical Economics: A. P. Rowlette, Moberly, Chairman; George L. Hawkins, St. Louis. Associate Members: John T. Crowe, Cape Girardeau; E. D. Imes, Maryville.

Mental Health: Thomas Thale, St. Louis, Chairman; G. Wilse Robinson, Jr., Kansas City; Ernest H. Parsons, St. Louis; W. J. Cremer, Fulton; Henry V. Guhleman, Jefferson City; John J. O'Hearne, Kansas City; James N. Haddock, St. Louis; E. H. Trowbridge, Jr., Kansas City; D. R. Edwards, Sedalia; Alex L. Brown, Springfield.

Maternal Welfare: Joseph L. Johnston, Springfield, Chairman; William See, Columbia; E. E. Wadlow, St. Joseph. Associate Members: P. V. Siegel, Smithton; James E. Keeler, Kansas City; Joseph M. Krebs, St. Louis; John E. Burch, Joplin; Francis R. Burns, Hannibal; E. L. Niedermeyer, Tarkio.

Infant and Child Care: D. B. Landau, Hannibal, Chairman; H. E. Wachter, St. Joseph; R. J. LaDriere, St. Louis; Guy N. Magness, University City; John S. Sennott, Jefferson City; R. Slickman, Appleton City; Roy F. Garrison, Kansas City; E. J. Schwartz, Springfield; Jack N. Wiles, West Plains; James A. Kinder, Cape Girardeau.

Health and Public Instruction: A. W. McAlester, III, Kansas City, Chairman; R. R. Grayson, Perryville.

Constitution and By-Laws: W. A. Bloom, Fayette, Chairman; H. M. Parker, Kansas City; Kenneth Larsen, St. Louis.

Fractures: Paul W. Meyer, Kansas City, Chairman; Ralph K. Earp, St. Louis. Associate Members: S. L. Gernstetter, Poplar Bluff; B. L. Murphy, Hannibal; Thomas G. Otto, Cape Girardeau; R. E. Funsch, St. Louis; O. P. Hampton, Clayton; Otis E. James, Jr., Kansas City.

Conservation of Eyesight: T. E. Sanders, St. Louis, Chairman; John McLeod, Kansas City; H. B. Stauffer, Jefferson City. Associate Members: Dick H. Underwood, Kansas City; Paul G. Wolff, Cape Girardeau; Michael F. Pernoud, St. Louis; D. E. Eggleston, Macon; Horace E. Allen, Columbia; W. L. Post, Joplin.

The subject of discussion was not disclosed.

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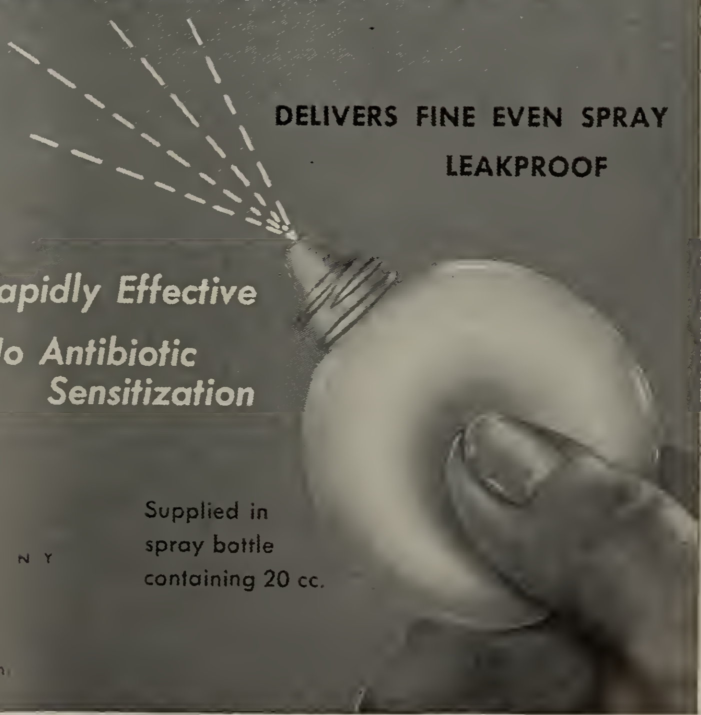

A Past President and a Councilor watch proceedings.

Control of Venereal Disease: Edwin M. Powell, Springfield, Chairman; R. J. Murphy, Kansas City.

Industrial Health: H. M. Roebber, Bonne Terre, Chairman; S. W. Scorse, Joplin. Associate Member: Douglas A. Ries, Richmond Heights.

Diabetes: Henry E. Oppenheimer, St. Louis, Chairman; Lucien W. Ide, St. Joseph. Associate Members: Robert E. Koch, Clayton; William H. Olmsted, St. Louis.

Anesthesiology: W. W. Tillman, Springfield, Chairman; Seymour Brown, St. Louis.

Hospital and Professional Relations: Hollis Allen, St. Louis, Chairman; Victor B. Buhler, Kansas City. Associate Member: Walter S. Sewell, Springfield.

Laboratory Medicine: Hilliard Cohen, Kansas City, Chairman; Joseph E. Flynn, Columbia; J. Owen Blache, St. Louis.

Physical Medicine and Rehabilitation: D. Elliott O'Reilly, St. Louis, Chairman; Frank D. Sundstrom, Springfield.

Tuberculosis: Paul Murphy, St. Louis, Chairman; E. E. Glenn, Springfield; Lawrence E. Wood, Kansas City; J. L. Mudd, St. Louis; C. A. Brasher, Mount Vernon; Walter C. Gray, St. Louis; F. E. MacInnis, Kansas City; H. L. Greene, Hannibal; David N. Kerr, St. Louis.

Study of Cardiac Disease: E. Lee Shrader, St. Louis, Chairman; Earl L. Loyd, Jefferson City; V. Bryce Ballard, Kansas City; E. J. McIntire, Carthage; A. M. Estes, Cape Girardeau; W. I. Park, Springfield; William A. Sodeman, Columbia; G. R. Hudson, Kirksville; Robert Paine, St. Louis; Caryl A. Potter, St. Joseph.

Alcoholism: Ralph E. Duncan, Kansas City, Chairman; S. D. Smith, Columbia; Kenneth C. Coffelt, Springfield; Joseph B. Kendis, St. Louis; George W. Forman, St. Joseph.

Rural Medical Service: A. E. Spelman, Smithville, Chairman; B. J. Bass, Salem; W. J. Shaw, Fayette; John F. Pearl, St. Clair; Charles H. Lewellen, Louisiana; C. A. McBurney, Slater; A. J. C. McCallum, Aurora; Jack Mullen, Bonne Terre.

Civil Defense: Carroll P. Hungate, Kansas City, Chairman; A. S. Bristow, Princeton; John Forgrave, St. Joseph; J. M. Canella, Hannibal; Curtis H. Lohr, Clayton; James L. Mayfield, Washington; William C. Allen, Glasgow; Carl Siegel, Sedalia; Don J. Silsby, Springfield; Samuel A. Grantham, Joplin; George E. Thoma, St. Louis; George L. Watkins, Farmington.

American Medical Education Foundation: James P. Murphy, St. Louis, Chairman; Karl K. Ness, St. Joseph; Donald F. Gose, Springfield; Carl R. Ferris, Kansas City.

Upon motion, duly seconded, the House of Delegates adjourned *sine die* at 3:15 p. m.

The Council met after the session of the House.

New Chairman of the Council and new Councilors pause for picture.

THE COUNCIL

The Council met on April 11, 1956, immediately following adjournment of the House of Delegates, R. O. Muether, M.D., St. Louis, Vice Chairman, presiding.

James W. Allee, M.D., Columbia, and Ralph Perry, M.D., Kansas City, were welcomed as new Councilors from the Fifth and Seventh Districts. B. E. DeTar, M.D., Joplin, was introduced by Walter S. Sewell, M.D., Springfield, President-elect, and the Council elected Dr. DeTar to fill out the unexpired term of Dr. Sewell, resigned. R. O. Muether, M.D., St. Louis, and J. H. Summers, M.D., were present, reelected as Councilors from the Third and Ninth Districts.

The following officers were elected: W. F. Francka, M.D., Hannibal, Chairman; R. O. Muether, M.D., St. Louis, Vice Chairman; E. Royse Bohrer, M.D., Jefferson City, Secretary; Jerome I. Simon, M.D., St. Louis, Treasurer.

REGISTRATION AT THE NINETY-EIGHTH ANNUAL SESSION

First Councilor District—34

Bauman, H. C., Maryville
Bristow, A. S., Princeton
Bristow, Robert, St. Joseph
Carrington, H. W., Lebanon
Carter, Howard, Hamilton
Clark, C. L., Trenton
Craig, Owen W. D., St. Joseph
Daley, Frank R., Hamilton
Dixon, John R., Brookfield
Dowell, Donald M., Chillicothe
Dowell, Horace S., Chillicothe
Duffy, E. A., Trenton
Fisher, Joseph L., St. Joseph
Forgrave, Paul, St. Joseph
Gary, George, Marceline
Herman, A. I., St. Joseph
Imes, E. D., Maryville
Jackson, W. R., Maryville
McArtor, T. R., Browning
McDonald, Wilbur P., St. Joseph
McDaniel, John R., St. Joseph
Matteson, Frank B., Grant City
Nibbe, Albert F., Bethany
Nicholson, Ralph L., Excelsior Springs
Parker, J. Z., Pattonsburg
Petersen, H. E., St. Joseph
Riddell, Richard, St. Joseph
Robinson, John A., Edgerton
Rost, William B., St. Joseph
Schroeder, S. O., Liberty
Smith, Clifton, St. Joseph
Vandiver, V. D., Chillicothe
Wadlow, E. E., St. Joseph

Second Councilor District—19

Anderson, Dwight W., Moberly
Andrae, Robert L., Louisiana
Canella, J. M., Hannibal

Eggleston, Donald E., Macon
Fleming, Thomas S., Moberly
Francka, W. F., Hannibal
Freeman, Spencer L., Kirksville
Hawkins, George W., Salisbury
Jennings, P. W., Canton
Kibbe, John H., Monroe City
Landau, Daniel B., Hannibal
Lanning, Robert J., Hannibal
Lewellen, Charles H., Louisiana
Middleton, John W., Louisiana
Murphy, B. L., Hannibal
Rowlette, A. P., Moberly
Smith, W. J., Hannibal
Weger, Carl C., Keytesville
Wilcoxen, W. B., Bowling Green

Third Councilor District—209

Allen, Duff, St. Louis
Allen, Henry C., Clayton
Allen, Hollis N., St. Louis
Allen, William E., Jr., St. Louis
Ayars, T. R., St. Louis
Bartlett, Robert W., St. Louis
Bartlett, Willard, St. Louis
Bartnick, M. L., St. Louis
Bassett, Robert B., St. Louis
Bauer, John D., St. Louis
Baumgarten, W., Jr., St. Louis
Beckery, Edward J., St. Louis
Beckette, E. S., St. Louis
Benjamin, D., St. Louis
Berard, L. N., St. Louis
Berg, Ralph, St. Louis
Bilsky, Nathan, St. Louis
Blache, J. Owen, St. Louis
Block, Arnold S., St. Louis
Bowerman, Harold H., St. Louis
Bricker, Eugene M., St. Louis
Brielmaier, Charles A., St. Louis
Brockelmann, Erich, St. Louis
Brown, Seymour, St. Louis
Bruce, Helen L., St. Louis
Bublis, Norbert J., Temple, Texas
Bukantz, Samuel C., St. Louis
Burford, C. E., St. Louis
Burford, E. H., St. Louis
Byrne, John E., Fort Leonard Wood
Campbell, Cecil S., St. Louis
Carroll, Grayson, St. Louis
Carter, William W., Clayton
Charles, Benjamin H., St. Louis
Connor, John J., St. Louis
Conrad, A. H., St. Louis
Conrad, A. H., Jr., Ladue
Cook, Ralph L., University City
Costello, Joseph P., St. Louis
Costen, James B., St. Louis
Coughlin, B. D., St. Louis
Culkin, Thomas R., St. Louis
Dalton, Arthur R., St. Louis
Danis, Peter G., St. Louis
Devine, John B., St. Louis
Deyton, John W., Webster Groves
Diehr, A. H., St. Louis
DiLeo, S. W., St. Louis
Dmytryk, Eugene T., St. Louis
Doyle, C. R., St. Louis
Eades, D. W., St. Louis
Eber, Carl T., St. Louis
Edwards, Joseph C., St. Louis
Efron, Joseph, Belleville, Illinois
Engleman, R., St. Louis
Ernst, E. C., Jr., St. Louis
Ernst, Edwin C., St. Louis
Falk, O. P. J., St. Louis
Feller, H. H., St. Louis
Fitzgerald, Leo P., University City
Foster, Howard M., St. Louis
Franklin, M. S., St. Louis
Freedman, Harold, St. Louis
Freund, Samuel J., St. Louis
Fries, Armand D., St. Louis
Fryer, Minot P., St. Louis
Furlow, L. T., St. Louis
Gafney, George T., St. Louis
Gradwohl, R. B. H., St. Louis
Grogan, F. M., St. Louis
Grueb, P. M., St. Louis
Gunn, Walter T., St. Louis
Hackmeyer, Rubin, St. Louis
Haddock, James N., Webster Groves
Hall, Preston C., St. Louis
Hammond, John J., St. Louis
Hampton, Stanley F., St. Louis
Harell, Alex, St. Louis
Harmann, Martin F., St. Louis
Hartman, H. E., St. Louis
Hartnett, D. C., St. Louis
Hartwig, John A., St. Louis
Hawkins, George L., Jr., Webster Groves
Henschel, Eugene V., St. Louis
Hewitt, Walter R., University City
Hickey, Robert F., St. Louis
Hobart, Carl, St. Louis
Holdenreid, William E., St. Louis
Hollo, Vencel W., St. Louis
Hyndman, C. E., St. Louis
Izmirlian, Grant, Webster Groves
James, Norman A., St. Louis
Jean, J. T., St. Louis
Jensen, J. Ernest, St. Louis
Jones, Andrew B., St. Louis
Jones, O. S., St. Louis
Katz, Samuel D., St. Louis
Keller, Louis, Clayton
Kerr, David N., St. Louis
King, Francis C., St. Louis
Kirchner, Walter C. G., St. Louis
Klein, Harry A., St. Louis
Kleinschmidt, C., Clayton
Klenk, Charles L., St. Louis
Klinge, F., St. Louis
Klym, N., St. Louis
Kneal, Ellsworth, St. Louis
Kohler, E. J., St. Louis
Kohler, Louis H., St. Louis
Koon, Bernard T., St. Louis
Koutsoumpas, William, St. Louis
Kouri, Martin F., St. Louis
Krebs, Joseph M., St. Louis
Kuebrich, T. C., Ferguson
Kurz, R. F., St. Louis
Ladd, Charles, St. Louis
Larsen, Kenneth V., St. Louis
Lawton, John T., St. Louis
Lederman, J., St. Louis
Lohr, Curtis H., Clayton
Luten, Drew, St. Louis
McAdam, C. Rush, St. Louis
McCarroll, H. R., St. Louis
McGinnis, Byron J., St. Louis
McMahon, Alphonse, St. Louis
Maas, Hermann, St. Louis
Macko, J. R., St. Louis
Macon, William L., Jr., St. Louis
Malles, A. Conrad, St. Louis
Mannis, Ben G., St. Louis
Markivee, C. R., St. Louis
Martin, C. E., St. Louis
Mastin, E. V., St. Louis
Max, C. O. C., St. Louis
Max, Paul F., St. Louis
Merenda, Sam J., St. Louis
Michaelree, John F., Maplewood
Moore, Neil S., St. Louis
Morris, Harvey E., St. Louis
Morris, Mary E., St. Louis
Mountjoy, Grace S., St. Louis
Mueller, Robert, St. Louis
Muether, R. O., St. Louis
Munsch, Augustus P., St. Louis
Murphy, James P., St. Louis
Murphy, Paul, St. Louis
Neilson, Arthur Wright, St. Louis
Nemec, Stanley S., St. Louis
Nester, Charles A., St. Louis
Newman, Percy, St. Louis
Oppenheimer, Henry E., St. Louis

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[1] Albertson, H.A. and Trout, H. H., Jr.: Antibiotics Annual 1954-55, Medical Encyclopedia, Inc., New York, N.Y., 1955, pp. 599-602.

[2] Prigot, A.; Whitaker, J. C.; Shidlovsky, B. A., and Marmell, M.: *ibid*, pp. 603-607.

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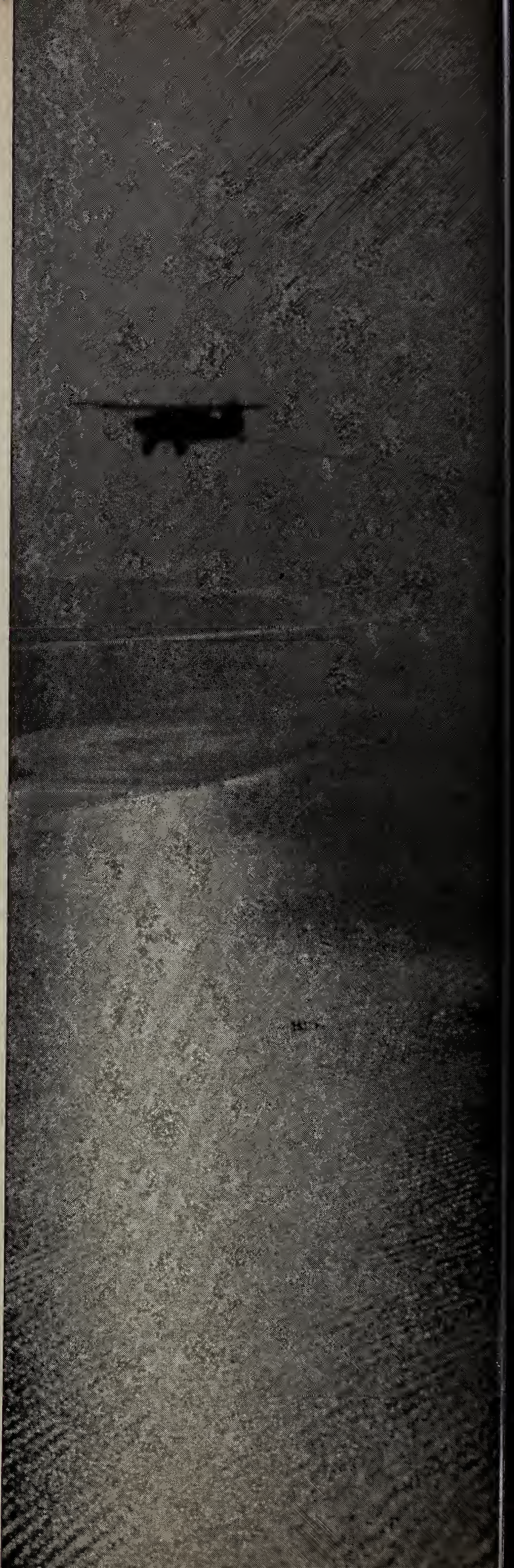

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Raemdonck, A. J., St. Louis
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Reiches, A. J., St. Louis
Rendleman, George, St. Louis
Rice, Earl R., St. Louis
Ritchie, Frances R., St. Louis
Ryan, Robert E., St. Louis
Sale, Llewellyn, Jr., St. Louis
Scherman, Victor E., St. Louis
Schierman, William D., Richmond Heights
Schlueter, Newell, St. Louis
Schnoebelen, P. C., St. Louis
Sciortino, John S., St. Louis
Scopelite, Joseph A., St. Louis
Scott, Elwin P., St. Louis
Scott, Wendell G., St. Louis
Sexton, Daniel L., St. Louis
Schackelford, H. H., St. Louis
Shen, Jerome T. Y., St. Louis
Shutt, C. H., St. Louis
Simon, J. I., St. Louis
Stahl, P. D., St. Louis
Stolar, J., St. Louis
Stutsman, A. C., St. Louis
Sullivan, Clement J., St. Louis
Summers, John B., St. Louis
Summers, Thomas F., St. Louis
Thale, Thomas, St. Louis
Thompson, J. William, St. Louis
Tjoflat, Oliver E., St. Louis
Tonelli, George L., St. Louis
Trunko, Leo, Lemay
Vaughn, A. N., St. Louis
Vezeau, S., St. Louis
Von Kaenel, J. E., St. Louis
Wall, Emmett D., St. Louis
Walters, Harold E., St. Louis
Webb, L. M., St. Louis
Weiler, Thomas J., St. Louis
Weiss, Richard S., St. Louis
Wentzel, L. R., St. Louis
Weyerich, L. F., St. Louis
Wing, Herman, St. Louis
Wirthlin, Edward H., St. Louis
Woolsey, Dean, St. Louis
Younger, Anita, St. Louis
Younger, Ernest, St. Louis
Zeinert, Oliver B., University City
Ziegelmeyer, John S., St. Louis
Zillgitt, George, St. Louis

Fourth Councilor District—93

Backlar, Joseph, Richmond Heights
Bailey, W. H., St. Louis
Bernstorff, Paul H., St. Louis
Berwald, Irvin I., St. Louis
Bozzo, Raymond J., Washington
Brenner, Paul A., Owensville
Brown, E. R., University City
Brown, W. Sidney, St. Louis
Cacioppo, Joseph E., St. Louis
Canty, E. J., St. Charles
Coldwater, K. B., St. Louis
Cowdry, Edmund V., Jr., St. Louis
Crawford, Robert M., Sullivan
Creech, J. C., Troy
Damron, E. O., Elsberry
Davis, E. W., St. Louis
Diehr, M. A., St. Louis
Doisy, Robert A., Kirkwood
Dowd, James F., St. Louis
Ecker, D. B., Pacific
Ellison, Leroy E., Maplewood
Emerson, Reynolds L., Brentwood
Fallet, Charles E., DeSoto
Farris, Henry G., St. Louis
Finkel, B. W., St. Louis
Fox, Leon J., St. Louis
Froelich, Edwin J., St. Louis
Froelich, Robert E., St. Charles
Gowen, Leo F., Webster Groves
Hall, Eugene W., Ferguson
Hampton, Oscar P., Jr., St. Louis
Hanlon, Thomas J., Muskogee, Okla.
Holscher, Edward C., Clayton
Howe, Louis F., Brentwood
Hughes, Robert G., Creve Coeur
Irick, Carl C., Webster Groves
Johnson, Grover C., Marthasville
Keller, Robert M., Owensville
Kendis, Joseph B., St. Louis
King, E. E., St. Louis
Kister, George E., St. Charles
Kuttner, Marianne, University City
Langenbach, A. M., Ladue
Leslie, C. H., Kirkwood
Lewin, W. Howard, St. Louis
Magness, Guy N., University City
Manganarao, Frank J., Webster Groves
Mayfield, J. L., Washington
Mays, Frank A., Washington
Meador, James R., Clayton
Merritt, Burch, St. Louis
Muench, L. O., Washington
Muschany, Norman K., Troy
Pearl, John F., St. Clair
Pfeffer, Robert I., St. Louis
Poggemeier, William H., St Charles
Post, J. P., Washington
Redington, James C., St. Louis
Richardson, W. R., Union
Rosenberg, Henry E., Richmond Heights
Rother, Paul H., St. Charles
Roufa, J. F., St. Louis
Ruhling, R., St. Louis
Rutledge, John F., Crystal City
Schattyn, Martyn, St. Louis
Schmidt, H. H., Marthasville
Schmidt, C. A., Washington
Schneider, V. A., St. Charles
Shepherd, Charles T., Clayton
Spitzer, Ernest, St. Louis
Steinbeck, H. D., Union
Steiner, A. J., St. Louis
Sterling, John A., Maplewood
Strehlman, Benjamin G., Union
Teiber, Fred W., St. Louis
Thiele, Belmont R., St. Louis
Tomlinson, William L., St. Louis
Veal, Mulloy S., St. Charles
Vinyard, Paul, St. Louis
Vitale, Anthony J., St. Louis
Vitale, N. S., St. Louis
Vizgird, J. J., St. Louis
Wepprich, M. S., Washington
Westrup, E. A., Kirkwood
Whitener, Paul R., St. Louis
Williamson, O. E., St. Louis
Witt, David B., Clayton
Workman, George, Hermann
Wulff, George, Jr., St. Louis
Wyatt, Lois C., Kirkwood
Yoskit, H., Festus
Young, John S., St. Louis
Zuckner, Jack, St. Louis

Fifth Councilor District—51

Allee, James W., Columbia
Allee, W. L., Eldon
Allen, William C., Glasgow
Amos, James R., Jefferson City
Andersen, E. J. T., Montgomery City
Belden, E. A., Jefferson City
Black, Samuel P. W., Columbia

Bloom, W. A., Fayette
Bruner, C. R., Columbia
Chalkley, J. I., Columbia
Cooper, Maurice E., Columbia
Dorris, R. P., Jefferson City
Durst, Henry, Fulton
Dwyer, Thomas L., Mexico
Garner, Lynn, Jefferson City
Gay, L. P., Jefferson City
Gunn, A. J., Versailles
Gunn, Jack, Versailles
Gurnee, L. H., Jefferson City
Hall, John R., Ashland
Hardwicke, H. M., Jefferson City
Jolly, Ben, Mexico
Kibbe, E. A., California
Killough, John H., Columbia
Lamke, Charles M., Columbia
Leslie, J. Paul, Jefferson City
Loyd, E. L., Jefferson City
McComas, A. R., Sturgeon
Matthews, John, Jefferson City
Meier, Francis X., Jefferson City
Meinershagen, C. W., Jefferson City
Modlin, John J., Columbia
Neal, M. Pinson, Columbia
Overholser, M. D., Columbia
Pullen, R. L., Columbia
See, William B., Columbia
Shaw, William J., Fayette
Sodeman, W. A., Columbia
Stephan, A. P., Jefferson City
Stephenson, Hugh E., Jr., Columbia
Stewart, William J., Columbia
Stuart, B. M., Boonville
Summers, J. S., Jefferson City
Summers, Joseph S., Jr., Jefferson City
Tanner, R. H., Jefferson City
Taylor, Leon, Jefferson City
Waggoner, C. M., Columbia
Ward, Robert L., Centralia
Washburn, J. Loren, Versailles
Watts, Byron E., Jefferson City
Wilcox, Howard L., Boonville
Winn, G. W., Boonville

Sixth Councilor District—20

Aiken, George A., Marshall
Brownsberger, R. H., Appleton City
Campbell, A. J., Sedalia
Edwards, David R., Sedalia
Goldberg, I. E., Braymer
Hansen, A. L., Butler
Haynes, Robert C., Marshall
Koppenbrink, W. E., Higginsville
Lawrence, John R., Marshall
Lederer, C. M., Warrensburg
Madison, Waite H., Marshall
Magee, Robert L., Eldorado Springs
Pearse, Roy W., Jr., Nevada
Reynolds, C. C., Sedalia
Roberts, Paul A., Sweet Springs
Stauffacher, C. G., Sedalia
Walker, Hugh B., Clinton
Walter, A. L., Sedalia
Worley, C. A., Sweet Springs
Wray, Rolla B., Nevada

Seventh Councilor District—49

Bennett, J. D., Kansas City
Benoit, Hector W., Jr., Kansas City
Bergmann, V. H., Kansas City
Boin, N. V., Kansas City
Bond, M. B., Kansas City
Bruner, Robert E., Kansas City
Buckingham, W. W., Kansas City
Duncan, Ralph E., Kansas City
Eubank, D. M., Raytown
Eubank, William R., Kansas City
Frick, J. Paul, Kansas City
Ganley, W. C., Kansas City
Gist, William W., Kansas City
Growdon, J. A., Kansas City
Hines, Paul, Kansas City
Hungate, C. P., Kansas City
Keeler, James E., Kansas City
Kerr, Russell W., Kansas City
Kiene, Richard H., Kansas City
Leitz, Frank B., Kansas City
McAlester, A. W., Kansas City
McCoy, Frederick J., Kansas City
McVay, James R., Kansas City
McVay, James R., Jr., Kansas City
Meyer, Paul W., Kansas City
Miller, Gerald L., Kansas City
Montello, S. A., Kansas City
Morrow, Raymond L., Kansas City
Mueller, Martin J., Kansas City
Murphy, Robert J., Kansas City
Nicolay, K. S., Kansas City
O'Hearne, John J., Kansas City
O'Malley, James F., Kansas City
Perry, Ralph, Kansas City
Reinhardt, G. R., Kansas City
Reitz, Carl H., Kansas City
Robinson, G. Wilse, Kansas City
Robinson, G. Wilse, Jr., Kansis City
Sandy, Charles, Kansas City
Schorer, Edwin H., Kansas City
Seely, Clark W., Kansas City
Stacey, Wallace R., Independence
Swisher, Robert C., Kansas City
Tarson, S. S., Kansas City
Twyman, Richard, Kansas City
White, E. C., Kansas City
White, S. F., Kansas City
Willoughby, J. B., Kansas City
Wortmann, Robert F., Kansas City

Eighth Councilor District—44

Ashley, Thomas E., Springfield
Bowman, Melvin C., Neosho
Brasher, Charles A., Mt. Vernon
Burney, W. S., Miller
Butterworth, Nelson S., Joplin
Callaway, Guy D., Springfield
Capetti, Alex P., Aurora
DeTar, B. E., Jr., Joplin
Farthing, Gene W., Springfield
Ferguson, John P., Springfield
Ferguson, R. M., Webb City
Glover, Kenneth, Mt. Vernon
Grantham, Sam, Joplin
Hall, Durward G., Springfield
Hoover, H. Lee, Springfield
Jeans, Virgil, Joplin

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Knabb, Kenneth E., Springfield
Knapp, Rudolph, Golden City
Kolze, V. W., Springfield
Langston, W. Roland, Springfield
Lemmon, G. B., Jr., Springfield
Lockhart, C. E., Springfield
McIntire, Emery J., Carthage
McNew, W. T., Carthage
Macdonnell, Thomas M., Marshfield
Maddux, W. P., Springfield
Magness, W. C., Branson
Napper, Marvin L., Springfield
Newman, Mary, Cassville
Paddock, Charles S., Joplin
Park, William I., Jr., Springfield
Peterson, Stanley S., Springfield
Putnam, John A., Carthage
Schwartz, E. J., Springfield
Sewell, W. S., Springfield
Silsby, Don J., Springfield
Silsby, Harry D., Springfield
Simmons, Leroy, Sarcoxie
Simpson, E. L., Springfield
Tillman, Walter W., Springfield
White, R. Ned, Springfield
Wood, George H., Carthage
Yancey, Daniel L., Springfield

Ninth Councilor District—20

Bass, B. J., Salem
Breuer, R. E., Rolla
Burns, T. J., Houston
Callihan, C. F., West Plains
Carnahan, C. E., Bourbon
Cooper, C. W., Thayer
Davis, H. H., Rolla
Froelich, R. W., Lebanon
Hammler, Christiana V., St. James
Hurst, B. B., Lebanon
Kelly, John B., Houston
Lytle, William R., Rolla
Ottensmeyer, Charles D., Van Buren
Russell, Barbara E., Rolla
Spear, Joe, Cabool
Stricker, E. A., St. James
Summers, J. H., Lebanon
Underwood, M. R., Rolla
Weeks, G. R., Lebanon
Wiles, Jack N., West Plains

Tenth Councilor District—36

Appleberry, C. H., Flat River
Bredall, Jerome J., Perryville
Bull, Ben M., Ironton
Campbell, Edward D., Cape Girardeau
Comeau, R., Dexter
Cook, Norman L., Cape Girardeau
Cook, O. W., Caruthersville
Elrod, D. B., Cape Girardeau
English, W. D., Cardwell
Estes, Albert M., Cape Girardeau
Fairchild, J. F., Perryville
Feltz, L. W., Perryville
Finney, W. O., Chaffee
Fuzzell, Jameso, Kennett
Grayson, R. R., Perryville
Grossman, Marvin, Fredericktown
Harland, R. E., Ironton
Huckstep, Robert A., Farmington
Jones, Paul L., Flat River
Karraker, Alvan, Farmington
Legner, Stanley G., Perryville
Loughead, John R., Poplar Bluff
McDonald, E. F., Jackson
May, A. L., Jr., Poplar Bluff
Peck, C. R., Kennett
Quintana, M., Perryville
Ridings, Harold D., Cape Girardeau
Seabaugh, D. I. L., Jackson
Seabaugh, William O. L., Cape Girardeau
Slaughter, S. C., Fredericktown
Smith, A. B. Sikeston
Taylor, Van W., Bonne Terre
Trolinger, J. H., Jackson
Tygett, Glenn J., Cape Girardeau
Watkins, G. L., Farmington
Wilson, Charles F., Cape Girardeau

Guest Speakers—12

Barnett, Henry L., New York
Biskind, Leonard H., Cleveland
Casberg, Melvin A., Solvang
Chaplin, H., St. Louis
Ellis, Elmer, Columbia
Holden, William D., Cleveland
Howard, T. Leon, Denver
Hungate, Frank, Hanford
Lee, Herbert C., Richmond
Nichol, E. Sterling, Miami
Spies, T. D., Birmingham
Wright, Claude-Starr, Augusta

Guest Physicians—75

Anast, Constantine, Columbia
Avery, W. B., University City
Bauer, G. L., Belleville
Blaney, Loren, Denver
Brewer, A. A., Alton
Burmeister, R. W., St. Louis
Caciolo, Carlo, St. Louis
Callahan, D. E., St. Louis
Calman, Carl H., University City
Carpenter, E. M., Lebanon
Corn, Henry H., Des Moines
Crotty, Richard, Omaha
Davies, J., Moline
Denny, E. Ronkin, Terre Haute
Duckworth, H. R., Piggett
Dzurik, Frank, Cleveland
Faed, Percavil, Rolla
Fernandez, Hector, St. Louis
Flaherty, Neil F., Scott AFB
Gallagher, R. T., Cincinnati
Gallivan, Edward L., Helena
Gaughan, J. J., Fairview Park
Gibby, John, St. Louis
Gingrich, Newell S., Columbia
Gresick, R. J., St. Louis
Haley, Harold B., Oak Park
Haque, M. W., St. Louis
Harville, W. E., Crossett
Helling, Harry B., Fort Madison
Hilfer, Richard J., Parma
Hogan, Patrick C., Clayton
Jones, Victor, Clayton
Kaspor, A. J., Grosse Pointe
Klink, Lon B., St. Louis
Kolp, Joseph W., Canton
Lamb, F. P., St. Louis
McCool, Robert F., Clarion
McEvoy, Robert J., Lakewood
McGowan, John R., St. Louis
McGrath, M. S., Weiser
Maier, John, St. Louis
Mann, Andrew D., Detroit
Manganaro, Ross A., Jefferson Barracks
Minch, D. E., Berea
Mitchell, R. E., Springfield
Moran, Paul, St. Louis
Morley, Fred H., Roxana

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Reilly, Thomas F., Springfield
Roehm, Robert J., Bay Village
Rush, Joseph C., St. Louis
Schroeder, Ernst, Clayton
Schroeder, John M., Winnebago
Spicer, Jack O., Decatur
Stein, W. J., St. Louis
Thomas, N. K., Tucson
Thompson, J. R., Clayton
Tombridge, T., St. Louis
Triska, Roland A., St. Louis
Tucker, Eugene, St. Louis
Vargas, J. A. Miranda, Pittsfield
Velat, Clarence A., Detroit
Vngvari, Joseph C., St. Louis
Walkowiak, John E., Cleveland
Ward, C. V., Peoria
Whitener, Miles C., St. Louis
Wilhelmus, Gilbert, Evansville
Williams, Maybelle P., Alton
Woodbridge, J. H., Pueblo
Zich, Walter J., St. Louis

There were registered 25 medical students, 136 medical technologists, 209 exhibitors, 161 Woman's Auxiliary members and 82 guests. Total registration 1,275.

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*Modell, W.: The Relief of Symptoms, Philadelphia, W. B. Saunders Company, 1955, pp. 265-266.

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Annual Banquet

Upper left: Past Presidents of the Association who were present at the banquet were asked to pose as a group. Left center: Officers of the Association and their wives were seated at the speakers' table. Lower left: Members who were eligible for the 50 Year Pin and who were present at the banquet to receive them then, posed together. Others eligible who could not be present were sent the pin. Upper right: Dr. Elmer Ellis, Columbia, President of the University of Missouri, presented the address at the banquet. Victor B. Buhler, M.D., Kansas City, President, presided. Center right: Dr. Buhler presented the gavel to Vice President Paul Forgrave, M.D., St. Joseph, who accepted it for Carl F. Vohs, M.D., St. Louis, incoming President. Lower right: Dr. Buhler congratulates Grace S. Mountjoy, M.D., St. Louis, on receiving her 50 Year Pin.

Towns and County

A

Adrian, Bates County
Affton, St. Louis County*
Albany, Gentry County
Altenburg, Perry County
Anderson, McDonald County
Appleton City, St. Clair County
Ash Grove, Greene County
Ashland, Boone County
Aurora, Lawrence County
Ava, Douglas County

B

Bakersfield, Ozark County
Ballwin, St. Louis County*
Barnard, Nodaway County
Belle, Maries County
Belton, Cass County
Berkeley, St. Louis County*
Bethany, Harrison County
Birch Tree, Shannon County
Bloomfield, Stoddard County
Blue Springs, Jackson County
Bolivar, Polk County
Bonne Terre, St. Francois County
Boonville, Cooper County
Bourbon, Crawford County
Bowling Green, Pike County
Branson, Taney County
Brashear, Adair County
Braymer, Caldwell County
Brentwood, St. Louis County*
Bridgeton, St. Louis County*
Brookfield, Linn County
Browning, Linn County
Brunswick, Chariton County
Buffalo, Dallas County
Butler, Bates County

C

Cabool, Texas County
California, Moniteau County
Camdenton, Camden County
Cameron, Clinton County
Campbell, Dunklin County
Camp Crowder (See St. Louis County)
Canton, Lewis County
Cape Girardeau, Cape Girardeau County
Cardwell, Dunklin County
Carl Junction, Jasper County
Carrollton, Carroll County
Carthage, Jasper County
Caruthersville, Pemiscot County
Cassville, Barry County
Cedar Hill, Jefferson County
Centralia, Boone County
Chaffee, Scott County
Charleston, Mississippi County
Chesterfield, St. Louis County*
Chillicothe, Livingston County
Clarksville, Pike County
Clayton, St. Louis County*
Clinton, Henry County
Coatsville, Schuyler County
Cole Camp, Benton County
Columbia, Boone County
Concordia, Lafayette County
Conway, Laclede County
Crane, Stone County
Creve Coeur, St. Louis County*
Crystal City, Jefferson County

D

Dearborn, Platte County
Desloge, St. Francois County
DeSoto, Jefferson County
Dexter, Stoddard County
Dixon, Pulaski County
Doniphan, Ripley County
Downing, Schuyler County
Drexel, Cass County

E

East Prairie, Mississippi County
Edgerton, Platte County
Edina, Knox County
Eldon, Miller County
El Dorado Springs, Cedar County
Ellington, Reynolds County
Elsberry, Lincoln County
Eureka, St. Louis County*
Excelsior Springs, Clay County

F

Fairfax, Atchison County
Farmington, St. Francois County
Faucett, Buchanan County
Fayette, Howard County
Fenton, St. Louis County*
Ferguson, St. Louis County*
Festus, Jefferson County
Fillmore, Andrew County
Flat River, St. Francois County
Florissant, St. Louis County*
Forsyth, Taney County
Fredericktown, Madison County
Frontenac, St. Louis County*
Fulton, Callaway County

G

Gallatin, Daviess County
Galt, Grundy County
Garden City, Cass County
Gashland, Clay County
Gideon, New Madrid County
Glasgow, Howard County
Glendale, St. Louis County*
Golden City, Barton County
Gordonville, Cape Girardeau County
Granby, Newton County
Grandview, Jackson County
Grant City, Worth County
Greenfield, Dade County
Green Ridge, Pettis County
Greentop, Schuyler County

H

Hamilton, Caldwell County
Hannibal, Marion County
Harrisonville, Cass County
Hartville, Wright County
Hayti, Pemiscot County
Herculaneum, Jefferson County
Hermann, Gasconade County
Hickman Mills, Jackson County
Higginsville, Lafayette County
Hillsboro, Jefferson County
Holden, Johnson County
Hopkins, Nodaway County
Hornersville, Dunklin County
Houston, Texas County
Houstonia, Pettis County
Humansville, Polk County
Hume, Bates County
Huntsville, Randolph County

I

Iantha, Barton County
Independence, Jackson County
Ironton, Iron County

J

Jackson, Cape Girardeau County
Jefferson Barracks, St. Louis County*
Jefferson City, Cole County
Jennings, St. Louis County*
Joplin, Jasper County

K

Kahoka, Clark County
Kansas City, Jackson County
Kennett, Dunklin County
Keytesville, Chariton County
Kimmswick, Jefferson County
King City, Gentry County
Kirksville, Adair County
Kirkwood, St. Louis County*
Knob Noster, Johnson County
Koch, St. Louis County*

L

Laddonia, Audrain County
Ladue, St. Louis County*
La Grange, Lewis County
Lakeview Heights, Benton County
Lamar, Barton County
La Monte, Pettis County
Lancaster, Schuyler County
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Lawson, Ray County
Leadwood, St. Francois County
Leasburg, Crawford County
Lebanon, Laclede County
Lee's Summit, Jackson County
Lemay, St. Louis County*
Lexington, Lafayette County
Liberty, Clay County
Licking, Texas County
Lilbourn, New Madrid County
Lockwood, Dade County
Louisiana, Pike County

M

Macon, Macon County
Malden, Dunklin County
Maplewood, St. Louis County*
Marceline, Linn County
Marshall, Saline County
Marshfield, Webster County
Marthasville, Warren County
Martin City, Jackson County
Maryville, Nodaway County
Maysville, DeKalb County
Mayview, Lafayette County
Mexico, Audrain County
Miami, Saline County
Middletown, Montgomery County
Milan, Sullivan County
Miller, Lawrence County
Moberly, Randolph County
Monett, Barry County
Monroe City, Monroe County
Montgomery City, Montgomery County
Montrose, Henry County
Morehouse, New Madrid County
Morrisville, Polk County
Mound City, Holt County
Mountain Grove, Wright County
Mount Moriah, Harrison County
Mount Vernon, Lawrence County

N

Naylor, Ripley County
Neosho, Newton County
Nevada, Vernon County
New Bloomfield, Callaway County
Newburg, Phelps County
New Florence, Montgomery County
New Haven, Franklin County
New Madrid, New Madrid County
Norborne, Carroll County
Normandy, St. Louis County*
North Kansas City, Clay County

O

Oak Grove, Jackson County
Oak Ridge, Cape Girardeau County
Odessa, Lafayette County
O'Fallon, St. Charles County
Olivette, St. Louis County*
Oran, Scott County
Oregon, Holt County
Overland, St. Louis County*
Owensville, Gasconade County
Ozark, Christian County

P

Pacific, Franklin County
Palmyra, Marion County
Paris, Monroe County
Parkville, Platte County
Parma, New Madrid County
Pattonsburg, Daviess County
Pattonville, St. Louis County*
Peculiar, Cass County
Perry, Ralls County
Perryville, Perry County
Piedmont, Wayne County
Pierce City, Lawrence County
Platte City, Platte County
Plattsburg, Clinton County
Pleasant Hill, Cass County
Poplar Bluff, Butler County
Portageville, New Madrid County
Potosi, Washington County
Princeton, Mercer County

R

Raytown, Jackson County
Reeds, Jasper County
Reeds Spring, Stone County
Republic, Greene County
Rich Hill, Bates County
Richland, Pulaski County
Richmond, Ray County

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Cline, Jesse A., Oran
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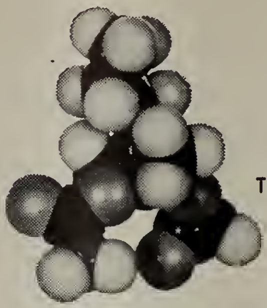

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K

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Lieb, Otto, St. Louis
Lieberman, B. Albert, Jr., Kansas City
Lieberman, David M., St. Louis
Liebmann, Fritz M., St. Louis
Liersch, Joseph C., Kansas City
Liese, Grover B., St. Louis
Liggett, Hiram S., St. Louis
Lilly, Terry E., Kansas City
Lilly, Terry E., Jr., Kansas City
Limbaugh, W. R., Hayti
Lindeman, Carl H., St. Louis
Lindquist, Carl N., Kansas City
Lindsay, John W., Conway
Link, Vance E., Independence
Linton, C. S., Kennett
Linville, Howard E., Kansas City
Lipschitz, Ervin, Clayton
Lipsitz, Ellis S., St. Luois
Lischer, Carl E., St. Louis
Lissack, Edmund, Concordia
Liston, Odus, Oak Grove
(Member Lafayette-Ray County)
Littauer, David, St. Louis
Littmann, Lewis E., Clayton
Litton, Lyle D., Springfield
Litzow, Louis T., St. Louis
Locker, George E., Iantha
Lockhart, Charles E., Springfield
Lockwood, Ira H., Kansas City
Lockwood, W. E., Slater
Loeb, Virgil, St. Louis
Loeb, Virgil, Jr., St. Louis
Loeffel, Ellen S., St. Louis
Loewy, Louise B., Kansas City
Logan, James A., Warsaw
Lohr, Curtis H., St. Louis
Lohr, Robert W., St. Louis
Londe, Sol, St. Louis
London, Stanley L., St. Louis
Lonergan, Warren M., St. Louis
Long, David S., Harrisonville
Long, Forrest C., Savannah
Long, Frank B., Sedalia
Long, Robert S., Kansas City
Longfield, Fred J., Lathrop
Lonsway, Maurice J., St. Louis
LoPiccolo, Vincent J., St. Louis
Lottes, James O., St. Louis
Loughead, John R., Poplar Bluff
Love, Drury M., Kansas City
Love, W. S., Nevada
Loving, B. Rush, Ballwin
Lovinggood, Thomas A., Cape Girardeau
Lowe, Alvin L., Sedalia
Lowe, Horace A., Springfield
Lowe, Horace A., Jr., Springfield
Lowell, Paul, Kansas City
Lowenstein, Paul S., Clayton
Lowney, John F., Columbia
Lowrey, Ford J., Kansas City
Loyd, Earl L., Jefferson City
Loyd, H. O., Jefferson City
Lucas, John H., Brookfield
Lucido, Joseph L., St. Louis
Lucke, Eugene M., Hannibal
Luckenbill, Paul T., Plattsburg
Luckey, Horace L., Maplewood
Luedde, Fullerton W., St. Louis
Luedde, Philip S., St. Louis
Luman, Frank E., Edina
Lund, Herluf G., St. Louis
Lund, Robert H., St. Louis
Lundgren, Fred H., Jr., Kansas City
Luppens, Albert F., Lee's Summit
Lurie, Harold H., Springfield
Lusk, Charles A., Jr., Butler
Luten, Drew W., St. Louis
Luter, Carter W., Butler
Lutkewitte, Joseph F., St. Marys
(Member Perry County)
Lutz, Martin H., Robertson
Lyddon, Harold R., Jr., Kansas City
Lyle, Robert R., Versailles
Lyman, Edward H., St. Louis
Lynxwiler, Chester P., St. Louis
Lytle, William R., Rolla
Lyttle, G. C., St. Louis
Lytton, George J., Kansas City
Lytton, William B., Clayton

Mc

McAdam, Charles R., St. Louis
McAdoo, Hosea W., Springfield
McAfee, C. Alan, St. Louis
McAlester, Andrew W., III, Kansas City
McArtor, Thomas R., Browning
McBurney, C. A., Slater
McCall, Edwin L., Brentwood
McCall, William K., Laddonia
McCallum, A. J. C., Aurora
McCann, Louis P., Nevada
McCanse, Raymond A., Kansas City
McCarroll, Henry R., St. Louis
McCarthy, Eugene F., St. Louis
McCarthy, Thomas D., Bridgeton
McCarthy, William F., Blue Springs
McCaughan, John M., St. Louis
McClanahan, Robert C., Kansas City
McCloskey, R. Bruce, Webster Groves
McClure, David N., St. Louis
McClure, Thomas C., Sikeston
McComas, Arthur R., Sturgeon
McComas, Robert E., Kansas City, Kansas
(Member Jackson County)
McConchie, James E., Independence
McCorkle, E. Lee, Marshall
McCormick, James E., North Kansas City
McCoy, Frederick J., Kansas City
McCoy, Warren R., Caruthersville
McCracken, Samuel R., Excelsior Springs
McCraw, Doyle C., Bolivar
McCubbin, Clarence R., Kansas City
McCubbin, J. Burleigh, Fulton
McCullough, Campbell C., Kansas City
McCunniff, William B., Kansas City
McDaniel, John R., St. Joseph
McDonald, Bruce P., Kansas City
McDonald, Eugene F., Jackson
McDonald, George H., St. Louis
McDonald, Wilbur P., St. Joseph
McDonnell, John F., Kansas City
McDonough, Robert C., St. James
McDowell, Frank S., St. Louis
McElroy, Glenn L., Columbia
McElvain, Robert C., St. Louis
McFadden, James F., Clayton
McFadden, James F., Jr., St. Louis
McFarland, M. D., Kansas City
McFarlane, John Alvin, St. Charles
McGennis, Patrick, St. Louis
McGinnis, Albert E., St. Louis
McGinnis, Byron J., St. Louis
McGinnis, William F., Clayton
McGinty, Charles P., Cape Girardeau
McGlothlan, Arthur B., St. Joseph
McHale, Thomas C., Kansas City
McHaney, John W., Jefferson City
McIntire, Emery J., Carthage
McIntire, Landon R., St. Charles
McKaskle, Clarence W., Caruthersville
McKee, Joseph W., Kansas City
McKinstry, Karl V., DeSoto
McKnelly, William Von, Jefferson City
McLean, Royal C., Kirkwood
McLelland, Richard I., University City
McLeod, John, Kansas City
McMahan, John H., St. Louis
McMahon, Alphonse, St. Louis
McMahon, Bernard J., Clayton
McMillan, Thomas E., Kansas City
McMurray, Herbert C., Wentzville
McNalley, Frank P., St. Louis
McNamara, John J., Overland
McNamee, Owen J., St. Louis
McNamee, William F., Affton
McNearney, Joseph, St. Louis
McNeel, John O., St. Louis
McNeel, Lee A., Jr., Greenfield
McNew, William T., Carthage
McPhee, William R., Omaha, Nebr.
(Member Jackson County)
McPheeters, James W., Poplar Bluff
McPheeters, J. W., Jr., Poplar Bluff
McPherson, Owen P., Branson
(Member Jackson County)
McPike, Lloyd H., Joplin
McShane, Quentin W., St. Louis
McSwiney, John G., St. Louis
McVay, James R., Kansas City
McVay, James R., Jr., Kansas City

M

Maas, Hermann, St. Louis
Mabrey, John P., Plattsburg
Macauley, Bernard J., Poplar Bluff
MacBryde, Cyril M., Kirkwood
Macdonald, William C., St. Louis
Macdonnell, Carey R., Marshfield
Macdonnell, Thomas M., Marshfield
MacInnis, Florence E., Kansas City
Mack, Mary L., Pasadena, Calif.
(Member Jasper County)
Mack, Robert E., Washington, D. C.
(Member St. Louis Medical Society)
Mackey, John F., Jr., St. Louis
Macko, Joseph R., St. Louis
Maclean, John A., Monrovia, Calif.
(Member Jackson County)
MacNaughton, Robert A., Jackson
Macnish, James M., St. Louis
Macon, William L., Jr., St. Louis
Maddox, Albert R., Sedalia
Maddox, John D., Joplin
Maddux, William P., Springfield
Madison, Waite H., Marshall
Magallon, Dorothy T., Louisville, Ky.
(Member St. Louis Medical Society)
Magallon, Robert A., Louisville, Ky.
(Member St. Louis Medical Society)
Magee, Charles D., St. Louis
Magee, Robert L., El Dorado Springs
Magidson, Joseph, Clayton
Magill, Joseph S., Milan
Magness, Guy N., St. Louis
Magness, William C., Branson
Magnin, Richard L., St. Joseph
Mahe, George A., Clayton
Maher, Robert W., Springfield
Maher, Thomas F., St. Louis
Mailman, Gershom, St. Louis
Mairs, Edgar J., Trenton
Maizus, Saul H., St. Louis
Major, Hermon S., Kansas City
Makous, Norman, Kansas City
Malinoski, Mitchell V., Poplar Bluff
Malles, A. Conrad, St. Louis
Mandler, George, Chillicothe
Maness, Charles E., Neosho
Manganaro, Frank J., Webster Groves
Manganaro, Ross A., Jefferson Barracks
Mangels, Kenneth A., Independence
Manion, Peter J., St. Louis
Mannis, Ben G., St. Louis
Mansbacher, Kurt, St. Louis
Mansur, Edward E., Miami, Fla.
(Member Cole County)
Manting, George, St. Louis
Maple, Francis M., Springfield
Maples, F. H., Mt. Vernon
Marcus, Morris D., St. Louis
Markel, Arthur D., Poplar Bluff
Markivee, Carroll R., St. Louis
Marks, Mark M., Kansas City
Marmor, William A., St. Louis
Marsh, Alice, Kansas City, Kansas
(Member Jackson County)
Marshall, A. H., Charleston
Marshall, Cameron F., Kansas City
Marshall, Homer C., Springfield
Marshall, W. J., Springfield
Marston, Warren G., St. Louis
Martin, Albert J., East Prairie
Martin, Andrew D., Sikeston
Martin, Charles E., St. Louis
Martin, Forrest L., Nevada
Martin, Frederick W., Jr., St. Louis
Martin, John N., Chillicothe
Martin, Joseph L., Eglin AFB, Fla.
(Member Lafayette-Ray County)
Martin, Maynard W., Houston, Texas
(Member St. Louis Medical Society)
Martin, Raymond T., St. Louis
Martin, Samuel P., East Prairie
Martin, Thomas M., St. Louis
Martin, W. E., Odessa
Martz, John C., Webster Groves
Mason, Roy E., St. Louis
Massie, Edward, St. Louis
Masters, William H., St. Louis
Masterson, Melvin L., Waco, Texas
(Member Lafayette-Ray County)
Mastin, E. Vernon, St. Louis
Mathae, George H., St. Louis
Mathewson, Hugh S., Kansas City
Matteson, Frank B., Grant City
Matthews, John G., St. Louis
Matthews, John I., Jefferson City
Mattis, Robert D., St. Louis
Maughs, Sydney B., St. Louis
Max, Clarence O. C., St. Louis
Max, Paul F., St. Louis
Maxey, Hugh W., Jefferson City
Maxson, T. Reed, Warrensburg
Maxwell, Richard W., University City
May, Albert L., Jr., Poplar Bluff
May, Benjamin F., St. Louis
May, James W., Kansas City
Mayer, John H., Jr., Kansas City
Mayer, Robert A., St. Louis
Mayfield, James L., Washington
Mays, Frank G., Washington
Maze, Lawrence E., St. Louis
Mazur, Herbert A., St. Louis
Mead, Samuel T., Slater
Meador, James R., Clayton
Meagher, Arthur J., St. Louis
Medler, Francis J., St. Louis
Mehan, George T., St. Louis
Meier, F. X., Jefferson City
Meinberg, William H., St. Louis
Meiners, Edwin P., St. Louis
Meiners, Theodore M., Webster Groves

Meinershagen, C. W., Jefferson City
Meinhardt, Ralph E., Enid, Okla.
(Member Jasper County)
Meisenbach, A. Edward, St. Louis
Melgaard, S. Ross, Kansas City
Melick, William F., St. Louis
Mellies, Eugene G., St. Louis
Mellies, George A., St. Louis
Mellis, Richard T., St. Louis
Meluney, S. E., St. Joseph
Mendeloff, Albert I., Baltimore, Md.
(Member St. Louis County)
Mendonsa, Elsa L., University City
Mendonsa, Lawrence E., St. Louis
Menne, Marvin G., Ironton
Merenda, Sam J., St. Louis
Meriwether, Don R., Kansas City
Merklin, Anton L., St. Louis
Merritt, Burch A., St. Louis
Merz, Jean J., St. Louis
Metz, Charles O., St. Louis
Meyer, Claude B., Springfield
Meyer, Curtis A., St. Louis
Meyer, Herman M., St. Louis
Meyer, James E., Ballwin
Meyer, Oscar D., St. Louis
Meyer, Paul W., Kansas City
Meyerhardt, Milton H., St. Louis
Meyers, Harold L., Kansas City
Meyers, John B., St. Louis
Meyers, Montague M., St. Louis
Mezera, Raymond A., University City
Michael, Vernon E., St. Louis
Michaelis, Charles E., Fredericktown
Michaelree, John F., Maplewood
Mickel, Arthur A., Fortuna, Calif.
(Member Ozarks Counties)
Middleman, Isadore C., St. Louis
Middleton, John W., Louisiana
Mier, Thomas M., St. Louis
Milder, Benjamin, St. Louis
Miles, George O., Kansas City
Miles, Paul W., St. Louis
Miller, Charles, Jr., Kirkwood
Miller, Charles W., St. Louis
Miller, Clint L., Lee's Summit
Miller, Clyde S., Waynesville
Miller, D. Herbert, Muskogee, Okla.
(Member Chariton Macon-Monroe-Randolph Counties)
Miller, Dean M., Mission, Kansas
(Member Jackson County)
Miller, Gerald L., Kansas City
Miller, H. Edward, St. Louis
Miller, Harold W., Willow Springs
Miller, Howard S., Macon
Miller, Leroy J., Columbia
Miller, Oliver J., Cape Girardeau
Miller, Wade H., Kansas City
Miller, Walter P., Kansas City
Miller, Wilson H., Kansas City
Millikin, Lester A., St. Louis
Mills, Warren B., St. Louis
Milster, Clyde R., St. Louis
Miltenberger, Paul C., Kennett
Minnihan, Robert W., St. Louis
Minton, Robert S., St. Joseph
Minton, William H., St. Joseph
Missey, Wilburn C., Jr., Creve Coeur
Mistachkin, Norman L., St. Louis
Mitchell, Andrew D., Kansas City
Mitchell, Ernest, Goodman
(Member Jasper County)
Mitchell, Robert H., Kansas City
Mitchell, Roy E., Salem
Mitchell, Samuel E., Malden
Mixson, William C., Kansas City
Modlin, John J., Columbia
Moeller, Carl E., St. Louis
Moen, Berwyn H., St. Joseph
Mohler, Elbert M., Jr., Senath
Molden, Charles A., St. Louis
Molholm, Hans B., Columbus, O.
(Member St. Louis Medical Society)
Monahan, Elmer P., Kansas City
Monat, Seymour, St. Louis
Montani, Charles, St. Louis
Montello, Samuel A., Kansas City
Montgomery, James G., Kansas City
Montgomery, John S., Milan
Moody, Jackson C., Harrisonville
Mooney, Justin L., Kansas City
Mooney, Marcel L., Kansas City
Moore, Carl V., St. Louis
Moore, Harry G., St. Louis
Moore, Neil S., St. Louis
Moore, Robert A., Kansas City
Moore, Sherwood, St. Louis
Moore, Walter L., Clayton
Moore, William E., Normandy
Morest, F. Stanley, Kansas City
Morfit, John C., Clayton
Morgan, David B., Kansas City
Moriarty, Lauren R., Kansas City
Morrin, Kevin C., St. Louis
Morris, Clyde L., Caruthersville
Morris, Harvey E., St. Louis
Morris, Mary E., St. Louis
Morris, Robert C., Nevada
Morrison, G. B., Nevada
Morrow, Raymond L., Kansas City
Morroway, James H., St. Joseph
Morse, Marvin, St. Joseph
Morton, Paul C., Springfield
Moskop, Peter G., St. Louis
Moss, Paul, Kansas City
Mosser, Robert S., Independence
Mothershead, John L., St. Joseph
Mott, James R., Hartville
Motzel, Albert J., St. Louis
Mountjoy, Grace S., St. Louis
Mowrey, William O., St. Louis
Moyer, Carl A., St. Louis
Muckerman, Richard I. C., St. Louis
Mudd, J. Gerard, St. Louis
Mudd, James L., St. Louis
Mueller, Charles B., St. Louis
Mueller, Clarence E., St. Louis
Mueller, Joseph A., St. Louis
Mueller, Martin J., Kansas City
Mueller, Morris A., Clayton
Mueller, Ralph E., Phoenix, Ariz.
(Member Jackson County)
Mueller, Robert, St. Louis
Mueller, Robert J., St. Louis
Mueller, W. K., St. Louis
Muench, Albert H., St. Joseph
Muench, Ludwig O., Washington
Muenster, Joseph J., Jr., Chicago, Ill.
(Member St. Louis Medical Society)
Muether, Raymond O., St. Louis
Mullarky, Wilbur A., St. Louis
Mullen, Jack, Bonne Terre
Mullen, Leo M., Kansas City
Mulligan, Leo V., St. Louis
Mullinax, Orr, St. Joseph
Mullins, Bernard L., North Kansas City
Multhauf, Cyril J., Kansas City
Mundy, H. F., St. Joseph
Mundy, William L., Kansas City
Munsch, Augustus P., St. Louis
Munsch, Girard A., St. Louis
Murphy, Bernard L., Hannibal
Murphy, James P., St. Louis
Murphy, John C., St. Louis
Murphy, John P., St. Louis
Murphy, Maurice J., Fairfax
Murphy, Paul, St. Louis
Murphy, Robert J., Kansas City
Murray, John W., Lincoln
(Member Pettis County)
Murray, Louis F., St. Louis
Muschany, Norman K., Troy
Musgrave, David E., Excelsior Springs
Musick, James D., Springfield
Musser, Richard E., Waynesville
Mutshnick, Clara P., St. Louis
Myers, E. Lee, St. Louis
Myers, James M., Rolla
Myers, John L., Des Moines, Wash.
(Member Jackson County)
Myers, John S., Kansas City
Myers, Robert M., Kansas City
Myers, Roy E., Joplin
Myers, Wilson A., Kansas City

N

Nakada, James R., St. Louis
Napper, Marvin L., Springfield
Naryka, Joseph J., St. Louis
Nash, Francis P., St. Louis
Nash, Helen E., St. Louis
Nash, W. Hampton, St. Louis
Neal, M. Pinson, Columbia
Needels, Orval T., Kansas City
Neff, Robert L., Joplin
Neilson, Arthur W., St. Louis
Neilson, Charles H., St. Louis
Nelson, Charles S., Westphalia, Kansas
(Member Jackson County)
Nelson, Fred L., Kansas City
(Member Buchanan County)
Nemec, Stanley S., St. Louis
Ness, Carl K., St. Joseph
Nessebrode, John H., Independence
Nester, Charles A., St. Louis
Nester, Gerard A., St. Louis
Netherton, George F., Cameron
Neu, Robert E., Clayton
Neubeiser, Ben L., St. Charles
Neumann, Roland F., Jr., St. Louis
Neun, W. F., St. Louis
Newman, Harold G., St. Louis
Newman, Mary Jane, Cassville
Newman, Percy, St. Louis
Nibbe, Albert F., Bethany
Nichols, Charles E., St. Louis
Nichols, Frank J., Fulton
Nicholson, Clarence M., St. Petersburg, Fla.
(Member St. Louis Medical Society)
Nicholson, Ralph L., Excelsior Springs
Nickson, Charles E., Jr., Independence
Nicolai, Charles H., St. Louis
Nicolay, Kenneth S., Kansas City
Niedermeyer, Edward L., Tarkio
Niedermeyer, F. P., Montgomery, Ala.
(Member Jackson County)
Niedermeyer, George J., St. Louis
Niederwimer, John, Koch
Nienstedt, Elam J., Sikeston
Niesen, Frank J., St. Louis
Nigro, D. M., Kansas City
Nigro, E. Robert, Kansas City
Nigro, Joseph A., Kansas City
Nisbet, Eliga B., Odessa
Nix, W. K., Marshall
Nixon, Edward E., Gallatin
Noah, Joseph W., St. Louis
Nofles, James W., St. Louis
Nolan, Charles J., St. Louis
Noller, Henry W., St. Louis
Noltensmeyer, Milton N., Kansas City
Norman, Robert M., Ava
North, William R., Nokomis, Fla.
(Member St. Louis County)
Northup, Glenn R., St. Louis
Norton, William H., St. Louis
Norval, Mildred A., St. Louis
Nuetzel, John A., St. Louis
Nulton, Ida M., Lancaster
Nunn, Pat M., Kansas City, Kansas
(Member Jackson County)
Nunnelly, Gordon M., Cape Girardeau
Nussbaum, Paul B., Cape Girardeau
Nussbaum, Robert A., St. Louis
Nye, Robert S., St. Louis

O

Obermeyer, Charles G., St. Louis
O'Brien, Edward C., St. Louis
O'Brien, Harry F., Mexico
O'Brien, James A., Paducah, Ky.
(Member Greene County)
O'Brien, Leo A., Kansas City
O'Brien, Raymond W., Kansas City
O'Brien, Robert M., St. Louis
Ochs, Randal N., Wheaton
O'Connell, Frank A., Kansas City
O'Connell, John, St. Louis
O'Connell, P. J., Kansas City
O'Connor, Robert J., Florissant
O'Connor, William B., St. Joseph
Odell, Richard T., St. Louis
O'Dell, Timothy T., Oran
O'Donnell, Joseph V., St. Louis
O'Dowd, James A., St. Louis
Oehler, William F., Cape Girardeau
Oetter, Donald L., St. Louis
Ogilvie, John H., Kansas City
Oglevie, Rial R., Kansas City
Ogura, Joseph H., Brentwood
O'Hearne, John J., Kansas City
Ohmoto, Masao, St. Louis
O'Keefe, C. D., St. Louis
O'Keefe, Joseph D., St. Louis
Old, Jacob W., Jr., Houston, Texas
(Member Jasper County)
O'Leary, James L., St. Louis
Olmsted, William H., St. Louis
O'Malley, Eugene J., St. Louis
O'Malley, James F., Kansas City
O'Neal, Lawrence W., St. Louis
O'Neal, Patricia, St. Louis
O'Neal, Robert M., St. Louis
O'Neil, James H., Kansas City
O'Neill, John B., St. Louis
Oppenheimer, Henry E., Clayton
O'Reilly, Daniel E., St. Louis
Orenstein, Joseph M., St. Louis
Orgel, M. Norman, St. Louis
Orr, Charles H., Ash Grove
Orrahood, M. David, Evansville, Ind.
(Member St. Louis Medical Society)
Osborne, Charles D., Sedalia
Osgood, George M., Kansas City
Ossman, Julian A., Jefferson City
O'Sullivan, George A., St. Louis
Ott, Harold J., Maplewood
Ottensmeyer, Charles D., Van Buren
Otto, Thomas G., Cape Girardeau
Overesch, Harry B., Kansas City
Overholser, Milton D., Columbia
Owen, James W., Jr., St. Louis

Owens, Bert O., Miami, Fla.
(Member St. Louis County)
Owens, Graham J., Kansas City
Owens, Hugh H., Kansas City
Owens, Michael J., Kansas City
Owens, Richard L., Kansas City
Owens, Robert H., Kansas City
Ozar, Milton B., Orlando, Fla.
(Member Jackson County)

P

Paddock, Charles S., Joplin
Paddock, Richard, St. Louis
Page, Jesse W., Victoria, Texas
(Member Butler-Ripley-Wayne Counties)
Paine, Robert, St. Louis
Painter, L. B., Jr., Portageville
Pakula, Sidney, Kansas City
Palazzo, Frank A., St. Louis
Palenske, Robert L., Hornersville
Paletta, Francis X., St. Louis
Pallett, Harold A., Kansas City
Papp, Sandor D., Joplin
Parashak, Paul M., St. Louis
Parato, John M., St. Louis
Pareira, Morton D., St. Louis
Paris, William H., St. Louis
Park, George M., Eureka
Park, William E., Cardwell
Park, William I., Jr., Springfield
Parker, A. C., Jr., Poplar Bluff
Parker, Elmer L., Kansas City
Parker, H. Graham, Smithville
Parker, Hubert M., Kansas City
Parker, John Z., Pattonsburg
Parker, Robert H., North Kansas City
Parker, Thomas W., University City
Parker, William, St. Louis
Parkhurst, Charles L., Houstonia
Parks, Stephen, Bloomfield
Parsons, Ernest H., St. Louis
Parsons, Eugene O., Kansas City
Pascoe, James J., Nevada
Passanante, Bartholomew M., St. Louis
Passman, Harold, Kansas City
Pate, O. S., North Kansas City
Patterson, Donald R., Joplin
Patterson, Grover S., Carthage
Patterson, John R., Kansas City
Patterson, William R., Warrensburg
Patton, Leslie E., St. Louis
Pawol, S. E., St. Louis
Payne, Bryan T., Lexington
Payne, Meredith J., Allentown, Pa.
(Member St. Louis Medical Society)
Payne, Richard J., St. Louis
Pearl, John F., St. Clair
Pearse, Roy W., Jr., Nevada
Pearson, Paul E., Kansas City
Peck, Chester R., Jr., Kennett
Peckham, John W., St. Louis
(Member Mid-Missouri)
Peden, Burnet W., Clayton
Peden, Joseph C., St. Louis
Peden, Joseph C., Jr., St. Louis
Peeler, James O., St. Louis
Peete, Don C., Kansas City
Pelz, Mort D., St. Louis
Pendleton, George F., Kansas City
Penn, Robert M., Silex
Penney, David L., St. Louis
Penninger, William H., Springfield
Pennington, F. E., St. Louis
Pennoyer, James, St. Louis
Perkins, Maxwell B., Willow Springs
Perll, Maurice F., Kansas City
Perll, Rita D., Kansas City
Pernoud, Flavius G., Jr., St. Louis
Pernoud, Michael F., St. Louis
Perry, David C., Mound City
Perry, John M., Princeton
Perry, Ralph, Kansas City
Perry, William D., St. Louis
Peters, Augustus W., St. Louis
Petersen, Fenton J., St. Louis
Petersen, H. E., St. Joseph
Peterson, Carl M., Kansas City
Peterson, Merle H., Crescent City, Calif.
(Member Franklin-Gasconade-Warren Counties)
Peterson, Milton C., Kansas City
Peterson, Stanley S., Springfield
Peterson, Walter R., Kansas City
Petry, Ezra L., Kansas City
Petty, Wallace S., Macon
Peugnet, Hubert B., St. Louis
Pfaff, John, Jr., St. Louis
Pfeffer, Robert I., St. Louis
Pfeifer, Oliver C., St. Louis
Pfuetze, Edwin L., Kansas City
Phillips, Hanford, St. Louis
Phipps, George W., Caruthersville
Pickard, Nicholas S., Kansas City
Pickens, E. Allen, Nevada
Pickens, Edgar E., Kansas City
Pickrell, Claude D., St. Louis
Piekarski, Anthony A., St. Louis
Pierron, John B., Kansas City
Pifer, Lawrence H., St. Joseph
Pinsker, Oscar T., Kansas City
Piper, Donald K., Kansas City
Pipkin, Garrett, Kansas City
Pittam, Radford F., Hutchinson, Kan.
(Member Jackson County)
Pitzman, Marsh, St. Louis
Plag, Albert F., St. Louis
Platt, Paul C., Kansas City
Platt, William R., St. Louis
Platz, John H., Carrollton
Plesons, John D., St. Louis
Ploehn, Emma, St. Louis
Ploussard, John H., St. Louis
Plumlee, William C., Springfield
Plummer, Grover C., Buffalo
Plumpe, W. Tupper, St. Louis
Poggemeier, William H., Jr., St. Charles
Polk, George M., Lee's Summit
Polk, John W., Springfield
Pollack, Maxwell A., St. Louis
Pollock, Ellis L., St. Louis
Pollock, Leo H., Kansas City
Poor, Carl W., Neosho
Poorman, Bert A., Kansas City
Popovich, Paul J., St. Louis
Popp, Carl G., St. Louis
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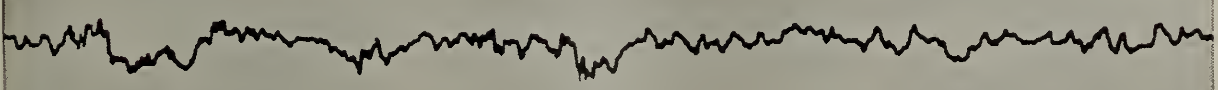
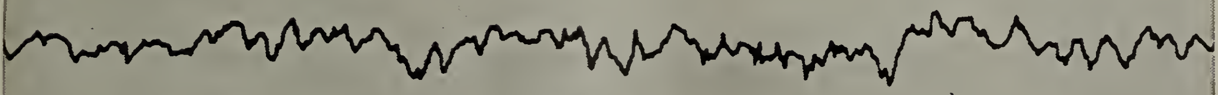
WHAT IS THE DIFFERENCE BETWEEN A TRANQUILIZER AND A SEDATIVE?

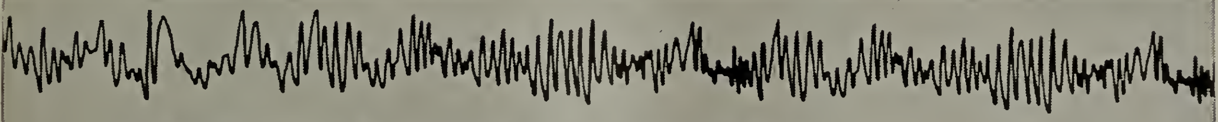
Comparison of the effect of Raudixin (tranquilizer) and a barbiturate (sedative) on the cortical electroencephalogram



No drug.



After Raudixin. E. E. G. not altered.



After barbiturate. Typical "spindling" effect.

Because barbiturates and other sedatives depress the cerebral cortex, the sedation achieved is accompanied by a reduction in mental alertness.

Raudixin acts in the area of the midbrain and diencephalon, and does not depress the cerebral cortex. Consequently, the tranquilizing (ataractic) effect achieved is generally free of loss of alertness.

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CEDAR COUNTY
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CLARK COUNTY
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Williams, Robert F., 710 Landers Bldg.
Wise, Gordon F., 215 Professional Bldg.
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Yancey, Daniel L., 1211 S. Glenstone

GRUNDY COUNTY
(Grand River Medical Society)

HARRISON COUNTY
(Grand River Medical Society)

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Jennings, Robert J., Windsor
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Thurber, Claude M., Windsor
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Walker, Hugh B., Clinton
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HICKORY COUNTY
(Dallas-Hickory-Polk County Medical Society)

HOLT COUNTY MEDICAL SOCIETY

Hogan, Frank E., Mound City
Kearney, Elmer F., Oregon
Perry, David C., Mound City
Sweaney, Isaac F., Oregon

HOWARD COUNTY MEDICAL SOCIETY

Allen, William C., Glasgow
Bloom, W. A., Fayette
Dean, Francis D., Fayette
Gardner, Joseph W., Glasgow
Leech, Maurice P., Fayette
Shaw, William J., Fayette
Shaw, William J., Jr., Fayette

HOWELL COUNTY
(South Central Counties Medical Society)

IRON COUNTY
(Mineral Area County Medical Society)

JACKSON COUNTY MEDICAL SOCIETY
(Kansas City)

Aaron, George A., 123½ W. Lexington, Independence
Adams, Noah, 1024 Alton, Independence
Adelman, Arthur, 701 E. 63rd St.
Ahlefeld, Charles B., 215 Pershing Rd.
Aisenstadt, E. Albert, 1204 W. 67th St.
Aks, Daniel, 1309 E. 82nd St. Terrace
Allebach, H. K., Research Hospital
Allen, Charles E., 712 Waldheim Bldg.
Allen, Charles H., 1st National Bank Bldg., Independence
Allen, Robert E., 411 Nichols Rd.
Allen, Sylvia, 4635 Wyandotte St.
Allen, William B., 411 Alameda Rd.
Alsop, Webb S., Jr., 411 Nichols Rd.
Altomare, Edward P., 1030 E. Pacific
Altringer, Arthur N., 305 W. 43rd St.
Anderson, A. Isadore, 723 W. 45th St.
Anderson, Raymond B., Plaza Time Bldg.
Anderson, Richard W., 21 W. 58th St.
Andrews, Berneil W., 4620 J. C. Nichols Parkway
Andrus, Bailey C., 233 Plaza Medical Bldg.
Arms, Arnold V., 4635 Wyandotte
Aschman, Theodore H., 174 Plaza Time Bldg.
Asel, Norman D., Plaza Time Bldg.
Asher, A. Graham, 1220 Professional Bldg.
Atcheson, Bellfield, 5215 Sunset Dr.
Atwell, Floyd C., 226 Plaza Time Bldg.
Atwood, John M., 209 W. 66th St.
Aull, John, 1306 Professional Bldg.
Bachmann, Paul L., 1212 W. Truman Rd., Independence
Baer, Alvin J., 1404 Bryant Bldg.
Baker, Philip J., Blue Ridge Cut-off & New 40 Highway
Ball, James E., 1102 E. 47th St.
Ballard, V. Bryce, 209 Plaza Time Bldg.
Barelli, Pat A., 425 E. 63rd St.
Barnett, Gordon P., 6333 Brookside Plaza
Barry, Gerald W., 3601 Troost Ave.
Barry, John W., Kansas City General Hospital No. 1
Barry, William B., 116 W. 47th St.
Baum, Frank E., 701 E. 63rd St.
Baumhardt, Edward E., 4635 Wyandotte
Bay, Merrill R., Blue Springs
Becker, Richard R., 4000 Baltimore
Bee, James E., 3520 Broadway
Beil, J. Wallace, 1205 W. 59th St.
Belaval, Gustavo S., 2018 Chester, Kansas City, Kansas
Bell, William F., 18 E. 3rd St., Lee's Summit
Belot, Monti L., Platte Woods, Parkville
Bennett, James D., 409 E. 63rd St.
Benoit, Hector W., Jr., 503 Plaza Parkway Bldg.
Berenson, Sheldon E., 427 E. 79th St.
Berger, Dan L., Plaza Time Bldg.
Bergmann, Victor H., 1120 Professional Bldg.
Bernreiter, Michael, 436 Professional Bldg.
Berry, Maxwell G., 315 Alameda Rd.
Biggs, Harry L., Raytown
Bikales, Victor W., 425 E. 63rd St.
Bills, Marvin L., 236 Plaza Time Bldg.
Birenboim, Irvin M., 701 E. 63rd St.
Black, Don A., 924 Professional Bldg.
Black, Eugene C., 1228 Professional Bldg.
Blumenschein, J. C., 203 S. Spring, Independence
Bolin, N. Venay, 519 Plaza Parkway Bldg.
Bond, Marcus B., 314 Wirthman Bldg.
Boody, Robert J., 519 Plaza Pkwy. Bldg.
Border, Charles T., 1701 Ruby Drive, Garland, Texas
Bordy, Marvin D., 109 Doctors Bldg.
Borenstine, Joseph, 121 W. 63rd St.
Botwin, Arnold E., 701 E. 63rd St.
Boughnou, Harvey P., 315 Alameda Rd.
Bourke, Timothy S., 1207 Rialto Bldg.
Boutros, Amin, 3112 Linwood
Bowser, John F., Plaza Time Bldg.
Brams, Jack B., 330 Professional Bldg.
Breen, Lois T., (Sister Mary Lois), 3210 E. 23rd St.
Bridgens, James G., Independence Sanitarium, Independence
Brown, Adrian J., 4526 Paseo
Brown, Irwin S., 230 Plaza Time Bldg.
Brown, Robert S., 1103 Grand Ave.
Broyles, Glen H., 1232 Professional Bldg.
Brumm, Lawrence W., 6308 Troost Ave.
Bruner, Robert E., 912 Valentine Rd.
Brust, Carl H., 6114 Howe Drive, Mission, Kansas
Bryan, William H., Jr., 2204 E. 18th St.
Buckingham, William, 314 Professional Bldg.
Buckner, Robert C., 403 Plaza Parkway Bldg.
Budke, Harold A., 306 E. 12th St.
Buhler, Victor B., General Hospital No. 1
Bunting, Williston P., 305 W. 43rd St.
Burns, Beryl I., 5421 Wyandotte
Burns, Jonathan E., 530 S. George, Charles Town, W. Va.
Butcher, Robert W., 8236 Tracy
Byers, Philip L., 4635 Wyandotte
Caffrey, Raymond J., Grandview
Caldwell, John K., 1036 Argyle Bldg.
Calkins, William G., 1 W. 89th St.
Callaway, Luther M., 306 E. 12th
Calovich, Emery R., 4620 Nichols Parkway
Campbell, Frederick B., 1210 Professional Bldg.
Campbell, John G., 1210 Professional Bldg.
Capell, Clarence S., 1135 Rialto Bldg.
Carbaugh, Glenn C., 2004 Bryant Bldg.
Carduff, Jay J., 1220 E. 31st St.
Carlson, Hjalmar E., 1316 Professional Bldg.
Carmichael, Francis A., Jr., 170 Plaza Time Bldg.
Carrier, Edson C., 315 Alameda Rd.
Casebolt, Buford T., General Hospital No. 1
Casebolt, Milton B., 4000 Baltimore
Casford, Ralph S., 315 Alameda Rd.
Cashman, John W., 535 Argyle Bldg.
Castelaw, Rush E., 3731 Locust St.
Castles, John E., 1002 Argyle Bldg.
Cavaness, Ernest W., 1010 Neptune Drive, Leucadia, Calif.
Centner, Paul J., 1000 Professional Bldg.
Chambers, James Q., Jr., 4620 Nichols Parkway
Chapman, Arthur H., 1132 Professional Bldg.
Chapman, Samuel B., 830 Argyle Bldg.
Clark, Harold B., Rialto Bldg.
Clark, Irving H., 5801 Kingslee Dr., Hickman Mills
Clasen, Arthur C., 4620 J. C. Nichols Parkway
Coburn, Donald F., 221 Plaza Time Bldg.
Cochran, Thomas E., Jr., 4218 W. 55th St., Kansas City, Kansas
Cochrane, Joseph J., 200 Plaza Medical Bldg.
Cockerell, Sanford F., 11037 Winner Rd., Independence
Coffey, Ralph R., 1324 Professional Bldg.
Coffin, Theodore A., 915 Professional Bldg.
Cohen, Harry K., 318 Argyle Bldg.
Cohen, Hilliard, Menorah Hospital
Colglazier, Mary C., 3317 E. 43rd St.
Colom, George A., 425 E. 63rd St.
Comboy, Lawrence J., 604 W. Maple, Independence
Connell, Evan S., 1408 Commerce Bldg.
Conover, Charles C., Trinity Lutheran Hospital
Cooper, John H., 1230 Argyle Bldg.
Cooper, Leo F., 1220 E. 31st St.
Cortner, Mary C., 4526 Paseo
Counsell, Chester M., 708 W. 17th St.
Cowherd, Joseph B., 6247 Brookside
Cox, Kenneth E., 4635 Wyandotte
Cramer, Quentin, 1226 Rialto Bldg.
Culbertson, William F., 5111 Wornall Rd.
Cummins, Walter F., 1612 Professional Bldg.
Curran, Edward J., 1805 Federal Reserve Bank Bldg.
Curran, Kevin E., 1805 Federal Reserve Bank Bldg.
Curran, Maurice D., 1805 Federal Reserve Bank Bldg.
Cutcliff, Daniel J., 1222 McGee
Dann, David S., 701 E. 63rd St.
Darrow, Robert S., 2625 W. Paseo
Davis, Herbert V., 411 Alameda Rd.
Davis, Jack M., Raytown
Davis, John J., 610 Professional Bldg.
Davis, Kenneth A., 231 W. 47th St.
Davis, Richard E., 1010 Professional Bldg.
Davis, Robert C., 820 Professional Bldg.
Day, Cameron B., 2203 E. 68th St.
Decker, Albert I., 3000 W. 73rd St.
DeMaria, Peter F., St. Joseph Hospital
DeMott, John D., 1405 Bryant Bldg.
DeMotte, John A., 249 Plaza Medical Bldg.
Dennie, Charles C., 1524 Professional Bldg.
Deweese, Everett R., 1010 Rialto Bldg.
Dickson, Frank D., 4312 Mill Creek Parkway
Diveley, Rexford L., 4312 Mill Creek Parkway

Dixon, Otto J., 1533 Professional Bldg.
Dixon, Vewiser L., 2204½ E. 18th St.
Dlabal, Luke J., 1210 Ash Ave., Independence
Doane, William L., Grandview
Dodge, Mark, 4635 Wyandotte
Dodge, Milton, 701 E. 63rd St.
Dorsch, Ervin H., 10912½ Winner Rd., Independence
Downey, James W., 425 E. 63rd St.
Drake, Roy F., 1032 Professional Bldg.
Draney, Thomas E., 4526 Paseo
Drisko, Robert M., 4620 Nichols Parkway
Drowns, Bruce V., 1524 Professional Bldg.
Duer, Mildred C., 310 W. 47th St.
Duncan, Ralph E., P. O. Box 2597
Duncan, William H., 1200 Professional Bldg.
Dwyer, Frank X., 231 W. 47th St.
Dwyer, Hugh L., 315 Alameda Rd.
Dye, Harold B., TWA Medical Dept., 10 Richards Rd.
Edde, Clifford G., 1034 Argyle Bldg.
Edmonds, Devilla D., 4800 E. 24th St.
Eisemann, Gustave, 208 Doctors Bldg.
Eldridge, Charles J., 409 E. 63rd St.
Elias, David J., 10311 Sheley Rd., Independence
Elliott, B. Landis, 519 Plaza Parkway
Elliott, James R., 1216 Professional Bldg.
Elliott, Raymond G., 1402 Bryant Bldg.
Elser, Otto H., 10901 Winner Rd., Independence
Engel, Lawrence P., 315 Alameda Rd.
Enna, Carl D., 316 Argyle Bldg.
Eubank, David F., Raytown
Eubank, Dillard M., Raytown
Eubank, William R., 1404 Bryant Bldg.
Evans, E. John E., Branson
Farley, Claude C., 4526 Paseo
Farney, Jacob P., 6305 Brookside Place
Farnsworth, Jesse J., 730 Professional Bldg.
Feierabend, Frank L., 327 Argyle Bldg.
Feist, George V., 2400 Tomahawk Rd.
Ferguson, Donald S., 6407 USAF Hospital, APO 323, c/o P.M., San Francisco, Calif.
Ferguson, Eugene H., 933 Professional Bldg.
Ferguson, James T., 410 Bryant Bldg.
Ferris, Carl R., 535 Argyle Bldg.
Findley, James W., 718 Shukert Bldg.
Finkle, Robert H., 4713 Crysler, Independence
Fitzgerald, Robert H., 309 W. Kansas Ave., Independence
Flanders, Horace F., 522 Professional Bldg.
Flatley, John A., Raytown
Fleming, Richard E., 4711 Central
Fleming, Royall B., 1433 E. 19th St.
Fogel, Isadore B., 100 Garden Bldg.
Folck, William P., 463 Powhatan St., Naval Base, Norfolk, Va.
Forman, Louis H., 4635 Wyandotte
Forsythe, Robert W., 170 Plaza Time Bldg.
Fowler, James W., 609 Professional Bldg.
Fox, Charles R., 830 Argyle Bldg.
Fox, William J., 830 Argyle Bldg.
Frankl, George, 308 Doctors Bldg.
Fredeen, Robert C., Plaza Time Bldg.
Frick, John P., 814 Professional Bldg.
Friedman, Morris L., 701 E. 63rd St.
Fuhrman, Donald L., 1524 Professional Bldg.
Gainey, Harold L., 4635 Wyandotte
Ganley, William C., 314 Argyle Bldg.
Gard, Raymond F., 604 W. Maple, Independence
Garrison, Roy F., 424 Professional Bldg.
Gaskins, John H., Plaza Parkway Bldg.
Gempel, Paul A., 315 Nichols Rd.
Gentry, Enoch N. Jr., 2414 Telephone Bldg.
Geraughty, Edward, Odd Fellows Home, Liberty
Gestring, Hugh A., 1220 E. 31st St.
Getelson, Joseph, 1218 Rialto Bldg.
Gibson, David M., St. Luke's Hospital
Gilkey, Harry M., 1624 Professional Bldg.
Gilliland, Oliver S., 814 Professional Bldg.
Gillmor, Charles S., 1226 Rialto Bldg.
Ginsberg, Norman A., 322 Professional Bldg.
Gist, William W., 1600 Professional Bldg.
Glasscock, Ernest L., 195 Plaza Time Bldg.
Goldman, Stanley L., 2208 Bryant Bldg.
Goodman, Leroy, 235 Plaza Time Bldg.
Goodson, William H., Jr., 730 Professional Bldg.
Grabske, Charles F., 129 W. Lexington St., Independence
Grabske, Charles F., Jr., 129 W. Lexington St., Independence
Graham, James W., 2904 Troost
Graham, Wallace H., 518 Argyle Bldg.
Grauerholz, James W., 3527 Broadway
Greaves, Eli A., 7303 Madison Ave.
Green, Jess D., Jr., 1765 S. Victor, Tulsa, Okla.
Green, John R., 10901 Winner Rd., Independence
Green, John Richard, 129 W. Lexington Ave., Independence
Green, Stanley L., 1st National Bank Bldg., Independence
Greene, W. Wallace, 4620 Nichols Parkway
Griffith, John A., Jr., Plaza Medical Bldg.
Growdon, John A., 1324 Professional Bldg.
Guffey, Don Carlos, 717 Professional Bldg.
Gundle, Sigmund, 425 E. 63rd St.
Gunn, Richard W., 6230 Truman Rd.
Haggen, Margaret E., 6228 Agnes St.
Haight, John M., 3401 E. 12th St.
Hale, Ralph, 5625 Pembroke Lane
Hall, James R., 6417 Willow Lane
Hall, Thomas B., 902 Professional Bldg.
Hallberg, John W., 4620 Nichols Parkway
Halperin, Phillip H., 701 E. 63rd St.
Hamel, Herbert A., 6306 Morningside
Hamilton, Hugh G., 1107 Bryant Bldg.
Hanes, Lee D., 4635 Wyandotte
Hanes, Robert L., General Hospital
Hardacre, Ruth A., 3300 Charlotte
Harless, Morris S., 409 E. 63rd St.
Harned, Bert W., 6902 Dearborn, Overland Park, Kansas
Harr, Donald L., 2200 McCoy
Hart, Lawrence W., 1710 Independence Ave.
Hartwig, Frederick H., 701 E. 63rd St.
Hashinger, Edward H., 411 Alameda Rd.
Haynes, Lee, 820 Archibald
Haynes, Solon E., 1200 Professional Bldg.
Hazen, Robert M., 600 Argyle Bldg.
Hearst, Allen L., 1100 Professional Bldg.
Heller, B. Marcus, 100 Garden Bldg.
Hellerstein, Stanley, 1710 Independence Ave.
Helman, Richard G., 625 Professional Bldg.
Henry, Clarke L., 221 Plaza Medical Bldg.
Henry, Schubert D., 1115 Grand Ave.
Herbst, Frank, 330 W. 45th Terrace
Herrman, George V., Plaza Time Bldg.
Hess, Paul D., 8423 High Drive
Hibbard, Blaine Z., 209 Plaza Time Bldg.
Hickerson, John C., 1st National Bank Bldg., Independence
Hickerson, William H., 1st National Bank Bldg., Independence
Higgins, Robert S., 411 Nichols Rd.
Hill, Jack H., Trinity Lutheran Hosp.
Hill, Jesse N., 1428 Hedges Ave., Independence
Hines, Paul, 2625 W. Paseo
Hink, Frederick W., 10235 Independence Rd.
Hirschboeck, Elizabeth J., (Sister Mary Mercy), 3210 E. 23rd St.
Hodgson, Frank H., 4301 Main St.
Hoeper, Samuel D., 6232 Troost
Hoffman, Jacob S., 330 Professional Bldg.
Hoffmann, R. Lee, 1019 Professional Bldg.
Hogan, Daniel F., 801½ W. 39th St.
Hogue, Frank S., 233 Plaza Medical Bldg.
Holbrook, Walter F., 3230 Wabash Ave.
Hollweg, Kenneth C., 612 Bryant Bldg.
Holman, H. Frank, St. Joseph Hospital
Holt, Waldo S., 4620 Nichols Parkway
Holton, Edward B., 310 S. Main St., Independence
Hook, Waller C., 1512 Professional Bldg.
Horseman, Robert F., 248 Plaza Medical Bldg.
Hoxie, George H., 2808 Hillegass Ave., Berkeley, Calif.
Hughes, Gerald E., 1107 Bryant Bldg.
Hungate, Carroll P., 934 Argyle Bldg.
Hunt, Claude J., 1612 Professional Bldg.
Hunter, Martin P., 1408 Waldheim Bldg.
Hurwitt, Frank, Pickwick Hotel
Ingham, Walton C., 411 Nichols Rd.
Irland, Robert D., Union Station Hospital
Irwig, Fred, 1610 Professional Bldg.
Jackson, William R., 1107 Bryant Bldg.
Jacob, Walter P., 701 E. 63rd St.
Jacobs, Morton, 6416 Verona Rd.
Jaime, Nicholas, 4050 Broadway
James, Otis E., Jr., 6306 Morningside Dr.
Jansen, Robert, 101 E. 63rd St.
Jarvis, James A., 236 Plaza Time Bldg.
Jarvis, William J., 1019 Professional Bldg.
Jeffries, Robert C., 6315 Brookside Plaza
Jennett, Harry N., 2701 Forest Ave.
Jennett, J. Harvey, 1630 Professional Bldg.
Johns, William C., General Hospital No. 1
Johnson, C. Laurence, 1316 Professional Bldg.
Johnson, Edgar W., 1130 Rialto Bldg.
Johnson, John E., Research Hospital
Johnson, Paul A., 121 N. Chelsea
Johnson, Thomas M., 198 Balcony Bldg.
Johnson, William A., 2206½ E. 18th St.
Johnstone, Paul N., 1110 Bryant Bldg.
Jones, George H., 1435 E. 78th St.
Jones, Theodore R., 236 Plaza Time Bldg.
Justus, John B., 201 Plaza Medical Bldg.
Kantor, Julius M., 701 E. 63rd St.
Kantor, Samuel, 2208 Bryant Bldg.
Katz, Milton, 1302 Professional Bldg.
Kaul, Philip G., Plaza Time Bldg.
Kealhofer, George C., 6627 Prospect Ave.
Keeler, James E., 4301 Main St.
Keith, Willis E., 204 Argyle Bldg.
Kells, William A., Grandview
Kelly, Eugene H., 402 Wabash Ave.
Keltner, Raymond O., Raytown
Kennard, George K., St. Mary's Hospital
Kent, Bela K., Doctors Bldg.
Kent, Clifford F., 1306 Bryant Bldg.
Kerr, Russell W., St. Joseph Hospital
Ketcham, William M., 1408 Waldheim Bldg.
Ketron, Marvin B., 5933 Cherry St.
Kettner, Edward G., 820 Professional Bldg.
Kienberger, Paul A., 5246 St. John
Kiene, Richard H., 4312 J. C. Nichols Parkway
Kimball, Merritt H., 91 Janssen Pl.
King, Walter R., 1032 Professional Bldg.
Kingsbury, Helen Coffin, 6415 Sagamou Rd.
Kirkpatrick, Milton E., 22nd & McCoy
Kiser, David M., 920 W. 47th St.
Kitchen, William M., 1010 Rialto Bldg.
Klein, Edward H., 200 Plaza Medical Bldg.
Klepinger, Dayton P., 4116 Warwick
Knight, John S., 305 W. 43rd St.
Knight, Lyle B., Lee's Summit
Knoch, H. Kermit, 403 Plaza Parkway Bldg.
Koehler, Charles A., 511 Wirthman Bldg.
Koenig, Frank J., 530 Professional Bldg.
Kohn, Cecil M., 630 Professional Bldg.
Korth, William M., 612 Professional Bldg.
Kovac, Albert P., 1222 McGee St.
Kraft, Jacob, 312 Doctors Bldg.
Kranson, Seymour J., 1210 Ash Ave., Independence
Kuhn, William F., II, 6247 Brookside
Kyger, Fred B., 1512 Professional Bldg.
Kyner, Thomas A., 214 Wirthman Bldg.
Lacy, N. Eugene, Plaza Time Bldg.
Laffoon, France L., Raytown
Lais, Lyman W., 4316 Adams, Kansas City, Kansas
Lally, James J., 1207 Rialto Bldg.
Lamar, Frederick C., 624 Professional Bldg.
Lamar, Robert F., 624 Professional Bldg.
Landis, George K., 1630 Professional Bldg.
Laning, J. Halcombe, 6205 Brookside
Lapi, Angelo, St. Mary's Hospital
Lapi, Ruth M., 2012 Stratford Rd.
Lapp, Harry C., 1314 Professional Bldg.
Lapp, John G., 1314 Professional Bldg.
Latham, Raymond W., Plaza Theatre Bldg.
Laurenzana, Frank P., 428 S. White
Layton, Ira C., Argyle Bldg.
Lee, Chester E., 174 Plaza Time Bldg.
Lee, George C., 1630 Professional Bldg.
Lehner, Richard L., Professional Bldg.
Leifer, William W., Doctors Bldg.
Leitch, Cecil G., 1010 Professional Bldg.
Leitz, Frank B., 6832 Locust St.
Lemoine, Albert N., Plaza Time Bldg.
Leonard, Ward H., 5709 Wabash
Levey, Harry B., 701 E. 63rd St.
Lewis, Revis C., 221 Plaza Time Bldg.
Lewis, William E., 4435 Harrison St.
Lichtor, Alexander, 1102 Grand Ave.

Lichtor, Joseph M., 1310 Bryant Bldg.
Lieberman, B. Albert Jr., 1002 Professional Bldg.
Liersch, Joseph C., 815 E. Gregory Blvd.
Lilly, Terry E., 807 Argyle Bldg.
Lilly, Terry E., Jr., 915 Argyle Bldg.
Lindquist, Carl N., 106 W. 14th St.
Link, Vance E., 1209 Beverly Rd., Independence
Linville, Howard E., 1416 Professional Bldg.
Lockwood, Ira H., 830 Argyle Bldg.
Loewy, Louise B., 2625 Paseo
Long, Robert S., 4800 E. 24th St.
Love, Drury McMillan, 1301 E. 59th Tr.
Lowell, Paul, 711 W. 46th St.
Lowrey, Ford J., 733 Rialto Bldg.
Lundgren, Fred H., Jr., 227 Plaza Medical Bldg.
Luppens, Albert F., Lee's Summit
Lyddon, Harold R., Jr., Westbrook Bldg.
Lytton, George J., 2200 McCoy
McAlester, Andrew W., III, 2003 Bryant Bldg.
McCanse, Raymond A., 241 Plaza Time Bldg.
McCarthy, Wm. F., 140 Lake Topawingo, Blue Springs
McClanahan, Robert C., 820 Professional Bldg.
McComas, Robert E., 6336 Paswell, Kansas City, Kansas
McConchie, James E., 1st National Bank Bldg., Independence
McCoy, Frederick J., 701 E. 63rd St.
McCubbin, Clarence R., 701 E. 63rd St.
McCullough, Campbell C., Argyle Bldg.
McCunniff, Wm. B., Argyle Bldg.
McDonald, Bruce P., 2604 Prospect Ave.
McDonnell, John F., Plaza Medical Bldg.
McFarland, M. D., Plaza Medical Bldg.
McHale, Thomas C., 4620 Independence Ave.
McKee, Joseph W., 1332 Professional Bldg.
McLeod, John, 209 Tower Bldg.
McMillan, Thomas E., 1019 Professional Bldg.
McPhee, William R., 3713 Erskine, Omaha, Nebr.
McPherson, Owen P., Branson
McVay, James R., 856 W. 62nd St.
McVay, James R., Jr., 814 Porter Bldg.
MacInnis, Florence E., 4620 Nichols Parkway
Maclean, John A., 600 N. Canyon Blvd., Monrovia, Calif.
MacNaughton, Robert A., St. Joseph Hospital
Major, Hermon S., 3100 Euclid Ave.
Makous, Norman, General Hospital
Mangels, Kenneth A., 11717 E. 23rd St., Independence
Marks, Mark M., 316 Doctors Bldg.
Marsh, Alice, Kansas University Medical Center, Kansas City, Kansas
Marshall, Cameron F., 201 Plaza Theatre Bldg.
Mathewson, Hugh S., 4224 W. 73rd Terrace
May, James W., 425 E. 63rd St.
Mayer, John H., Jr., 503 Plaza Parkway Bldg.
Melgaard, S. Ross, 6831 Cherry St.
Meriwether, Don R., 5109 W. 60th Terrace
Meyer, Paul W., 4312 J. C. Nichols Parkway
Meyers, Harold L., 308 Doctors Bldg.
Miles, George O., 233 Plaza Time Bldg.
Miller, Clint L., Lee's Summit
Miller, Dean M., 6612 W. 61st St., Mission, Kansas
Miller, Gerald L., 400 Professional Bldg.
Miller, Wade H., 305 Professional Bldg.
Miller, Walter P., 800 Argyle Bldg.
Miller, Wilson H., 4620 Independence Ave.
Mitchell, Andrew D., 200 Plaza Time Bldg.
Mitchell, Robert H., 410 Bryant Bldg.
Mixson, Wm. C., 4635 Wyandotte
Monahan, Elmer P., 814 Argyle Bldg.
Montello, Samuel A., 248 Plaza Medical Bldg.
Montgomery, James G., 1332 Professional Bldg.
Mooney, Justin L., 2006 Bryant Bldg.
Mooney, Marcel L., 1420 Bryant Bldg.
Moore, Robert A., 106 W. 14th St.
Morest, F. Stanley, 405 Plaza Parkway Bldg.
Morgan, David B., 4620 Nichols Parkway
Moriarty, Lauren R., St. Mary's Hospital
Morrow, Raymond L., 409 E. 63rd St.
Moss, Paul, 406 Bryant Bldg.
Mosser, Robert S., 4015 Eaton
Mueller, Martin J., 934 Argyle Bldg.
Mueller, Ralph E., 4219 N. 33rd Place, Phoenix, Ariz.
Mullen, Leo M., 4443 Paseo
Multhauf, Cyril J., 1222 McGee St.
Mundy, William L., 420 Professional Bldg.
Murphy, Robert J., 4301 Main St.
Myers, John L., Wesley Garden, Des Moines, Wash.
Myers, John S., 815 Shukert Bldg.
Myers, Robert M., 1025 Rialto Bldg.
Myers, Wilson A., 815 Shukert Bldg.
Needels, Orval T., 7400 Wornell Rd.
Nelson, Charles S., Westphalia, Kansas
Nesselrode, John H., 604 W. Maple, Independence
Nickson, Charles E., Jr., 10901 Winner Rd., Independence
Nicolay, Kenneth S., 4635 Wyandotte
Niedermeyer, Fred P., 3810th USAF Hospital, Maxwell AFB, Montgomery, Ala.
Nigro, Dominic M., 1222 McGee St.
Nigro, E. Robert, 1222 McGee St.
Nigro, Joseph A., 1222 McGee St.
Noltensmeyer, Milton N., 3616 E. Roanoke Dr.
Nunn, Pat M., 1401 Southwest Blvd., Kansas City, Kansas
O'Brien, Leo A., 1002 Argyle Bldg.
O'Brien, Raymond W., 4620 J. C. Nichols Parkway
O'Connell, Frank A., 329 Argyle Bldg.
O'Connell, P. J., 327 Argyle Bldg.
Ogilvie, John H., 224 Rialto Bldg.
Oglevie, Rial R., 522 Professional Bldg.
O'Hearne, John J., General Hospital No. 1
O'Malley, James F., 628 Professional Bldg.
O'Neil, James H., 425 E. 63rd St.
Osgood, George M., 915 Professional Bldg.
Overesch, Harry B., 600 Professional Bldg.
Owens, Graham J., 906 Grand Ave.
Owens, Hugh H., 1034 Rialto Bldg.
Owens, Michael J., 701 E. 45th St.
Owens, Richard L., 1034 Rialto Bldg.
Owens, Robert H., 628 Professional Bldg.
Ozar, Milton B., 1360th AFB Hospital, Orlando, Fla.
Pakula, Sidney F., 251 Plaza Time Bldg.
Pallett, Harold A., 1132 Professional Bldg.
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Bugg, Andrew P., Ellington
Bull, Ben M., Ironton
Carleton, Charles E., Jr., Farmington
Clapsaddle, Clare J., Ste. Genevieve
Cresswell, George F., Potosi
Crouch, F. R., Farmington
Evans, Albert L., Bonne Terre
Farrar, C. B., Flat River
Foster, Jack L., Desloge
Gaebe, Harold C., Desloge
Gay, George, Ironton
Grossman, Marvin, Fredericktown
Harland, R. E., Ironton
Haw, Marvin T., Jr., 4338 Creelman Pl., Affton
Hoctor, Emmett F., Farmington
Huckstep, Robert A., Farmington
Hunt, John W., Jr., Leadwood
Jones, Paul L., Flat River
Karraker, Alvan G., Farmington
Lanning, Richard C., Ste. Genevieve
Lanning, Robert W., Ste. Genevieve
Menne, Marvin C., Ironton
Michaelis, Charles E., Fredericktown
Mullen, Jack, Bonne Terre
Roebber, Harry M., Bonne Terre
Sexauer, Arthur E., Ste. Genevieve
Slaughter, Shelby C., Fredericktown
Taylor, Byron H., Jr., Flat River
Taylor, Van W., Box 466, Bonne Terre
Watkins, George L., Jr., Farmington

MISSISSIPPI COUNTY
(SEMO County Medical Society)

MONITEAU COUNTY MEDICAL SOCIETY

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Gallagher, Lionel M., California
Kibbe, Edgar A., California
Latham, Kenyon S., California

MONROE COUNTY
(Chariton-Macon-Monroe-Randolph County Medical Society)

MONTGOMERY COUNTY MEDICAL SOCIETY

Andersen, Elmer J. T., Montgomery City
Byland, Samuel J., Wellsville
Helm, James O., New Florence
Hirsch, Albert, Middletown

MORGAN COUNTY MEDICAL SOCIETY

Gunn, Aubrey J., Versailles
Gunn, Jack, Versailles
Kauffman, Ruth, Versailles
Lyle, Robert R., Versailles
Washburn, J. Loren, Versailles

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(SEMO County Medical Society)

NEWTON COUNTY
(Ozarks County Medical Society)

NODAWAY-ATCHISON-GENTRY-WORTH COUNTIES MEDICAL SOCIETY

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Bauman, Henry C., Maryville
Bell, Charles T., Maryville
Blacklock, David E., King City
Byland, Benjamin F., Maryville
Carlin, Albert L., Stanberry
Carpenter, Wallace, Rock Port
Cossins, Carlos E., State Hospital No. 2, St. Joseph
Dunshee, Robert E., Maryville
Humberd, Charles D., Barnard
Imes, Elvin D., Maryville
Jackson, Wm. R., Maryville
Kirk, Charlie W., Hopkins
Matteson, Frank B., Grant City
Murphy, Maurice J., Fairfax
Niedermeyer, Edward L., Tarkio
Rose, Frank H., Albany
Settle, Emmett B., Rock Port
Wempe, G. Raymond, Maryville

NORTH CENTRAL COUNTIES MEDICAL SOCIETY
(Adair-Schuyler-Knox-Sullivan-Putnam Counties)

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English, Milton T., Jr., Kirksville
Freeman, Spencer L., Kirksville
Gerwig, Henry E., Downing
Hart, Pearl V., Coatsville
Henry, Clifford E., Kirksville
Holman, Jurney H., Unionville
Hudson, G. R., Kirksville
Humphrey, Henry M., Brashear
Jones, John B., Kirksville
Luman, Frank E., Edina
Montgomery, John S., Milan
Nulton, Ida M., Lancaster
Rosenthal, Louis M., Greentop
Stickler, Ralph O., Kirksville
Sullivan, William J., V. A. Hospital, Davis Park, Providence, R. I.
Taruydas, Francis, Edina
Wimp, J. J., Kirksville

OREGON COUNTY
(South Central Counties Medical Societies)

OSAGE COUNTY
(Unorganized)

OZARK COUNTY
(South Central Counties Medical Society)

OZARKS COUNTY MEDICAL SOCIETY
(Barry-Lawrence-Stone-Christian-Taney-Newton-McDonald Counties)

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Bennett, Joseph D., Branson
Blankenship, George W., Anderson
Bowman, Melvin C., Neosho
Brasher, Charles A., Mount Vernon
Burney, Wallace S., Miller
Capetti, Alex P., Aurora
Cardwell, Clarence, Stella
Carter, James R., Neosho
Coffman, Esther E. L., 4139 Connecticut St., St. Louis (16)
Cohnberg, Rosellen E., Monett
Cottrell, Wilson P., Reeds Spring
Cowan, R. D., Aurora
Davis, Paul C., Neosho
Donley, Robert R., Monett
Edwards, Francis L., Monett
Eller, Byron H., 430 Pitsanuloke Rd., Bangkok, Thailand
Evans, Harry T., Branson
Ferguson, Lewis H., Monett
Ferguson, L. H., Jr., V. A. Hospital, Clarksburg, W. V.
Glover, Kenneth, Mount Vernon
Graves, Arthur J., Mount Vernon
Hellweg, Charles E., Mount Vernon
Holmes, Lemuel I., Miller
Imes, Clifford H., Rt. 4, Manhattan, Kan.
Kerr, Frank T., Monett
Lamson, Roy C., Neosho
Lentz, Harold C., Neosho
McCallum, A. J. C., Aurora
Magness, William C., Branson
Maness, Charles E., Neosho
Maples, Floyd H., Mount Vernon
Mickel, Arthur A., 940 Main St., Fortuna, Calif.
Newman, Mary J. N., Cassville
Ochs, Randal N., Wheaton
Reynolds, James R., Neosho
Rolens, Louis E., Granby
Roper, Stanley D., Ozark
Russell, James M., Monett
Shumate, L. S., Reeds Spring
Spears, Charles A., Pierce City
Stokes, Julius B., Excelsior Springs
Sweany, Henry C., Mount Vernon
Taylor, Leo T., Neosho
Treadgill, Jesse M., Forsyth
Whitehead, Frank F., Neosho
Wommack, Fred L., Crane
Yates, J. Lewis, Mount Vernon

PEMISCOT COUNTY MEDICAL SOCIETY

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Beecher, Sheldon B., Caruthersville
Brown, Charles W., 5351 Delmar Blvd., St. Louis
Cain, Charles F., Caruthersville
Chapman, J. R., Steele
Cook, O. W., Caruthersville
Cooke, Francis W., Caruthersville
Cooper, Lawrence E., 1274 Hanton, Fort Myers, Fla.
Denton, Levi D., Hayti
Hensley, Daniel R., Wardell
Kaiser, Clarence Drace, Hayti
Lamb, Woodrow M., Caruthersville
Limbaugh, Walter R., Hayti
McCoy, Warren R., Caruthersville
McKaskle, Clarence W., Caruthersville
Morris, Clyde L., Caruthersville
Phipps, George W., Caruthersville
Price, Harry J., Hayti
Ricketson, George M., U.S.S. Badoeng, FPO, San Francisco, Calif.
Shirey, Arnold G., Hayti
Taylor, Edward L., 2239 Union Ave., Memphis, Tenn.
Turner, James H., Steele
Turner, William F., Steele

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Carron, Oscar A., Perryville
DeGenova, G. H., Ste. Genevieve
Fairchild, James F., Perryville
Feltz, L. W., Perryville
Fischer, Theodore, Altenburg
Grayson, Richard R., Perryville
Legner, Stanley G., Perryville
Lutkewitte, Joseph F., St. Marys
Miller, Oliver J., Cape Girardeau
Quintana, Manuel M., Perryville
Riley, Fred P., Perryville
Utterman, William F., Perryville

PETTIS COUNTY MEDICAL SOCIETY
(Sedalia)

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Bess, William E., 210½ S. Ohio St.
Boger, James W., 120 W. 5th St.
Brady, Charles H., 205 Ilgenfritz Bldg.
Campbell, Albert J., 312½ S. Ohio
Cannady, J. E., 312½ S. Ohio
Carlisle, John B., 314 S. Ohio
Dyer, David P., 301 Sedalia Trust Bldg.
Edwards, D. R., 107½ S. Ohio
Ewert, J. O., 412½ S. Ohio
Fisher, Stanley D., 2403 Greenwood St.
Gonser, Karl B., 101 S. Ohio
Hite, Henry A., Green Ridge
Hopkins, Thomas J., Fifth & Ohio
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Lemire, Robert W., 1814 W. 11th St.
Long, Frank B., 219½ S. Ohio
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Maddox, Albert R., 116½ W. Main
Murray, John W., Warsaw
Osborne, Charles D., 710 W. Broadway
Parkhurst, Charles L., Houstonia
Proctor, Donald C., 418½ S. Ohio
Rhodes, Euhlan L., 717 W. 6th St.
Rodeman, John M., 219½ S. Ohio St.
Schultz, Loraine E., Bothwell Memorial Hosp.
Siegel, Carl D., 1216 W. 18th
Siegel, Peter V., Smithton
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Stauffacher, C. Gordon, 101½ S. Ohio
Walker, William E., La Monte
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PHELPS COUNTY
(Mid-Missouri County Medical Society)

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Cunningham, Eric A., Louisiana
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Johnson, Q. Ray, Jr., Louisiana
Lewellen, Charles H., Louisiana
Lewellen, Charles P., Louisiana
Middleton, John W., Louisiana
Scott, Clive D., Louisiana
Treadway, W. W., Silex
Wilcoxen, William B., Bowling Green

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Calvert, Lewis C., Weston
Durham, Silas L., Dearborn
Jennings, Ethlyn C., R. D. 4, North Kansas City
Robinson, John A., Edgerton
Thurman, H. C., Parkville

POLK COUNTY
(Dallas-Hickory-Polk County Medical Society)

PULASKI COUNTY
(Mid-Missouri County Medical Society)

PUTNAM COUNTY
(North Central Counties Medical Society)

RALLS COUNTY
(Marion-Ralls-Shelby County Medical Society)

RANDOLPH COUNTY
(Chariton-Macon-Monroe-Randolph County Medical Society)

RAY COUNTY
(Lafayette-Ray County Medical Society)

REYNOLDS COUNTY
(Mineral Area County Medical Society)

RIPLEY COUNTY
(Butler-Ripley-Wayne County Medical Society)

ST. CHARLES COUNTY
(Lincoln-St. Charles County Medical Society)

ST. CLAIR COUNTY
(West Central Missouri Medical Society)

ST. FRANCOIS COUNTY
(Mineral Area County Medical Society)

STE. GENEVIEVE COUNTY
(Mineral Area County Medical Society)

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(St. Louis)

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Ackerman, Lauren V., 600 S. Kingshighway (10)
Adler, Benard C., 500 N. Skinker (5)
Agress, Harry, 1045 Missouri Theatre Bldg. (3)
Ahern, Archibald M., 3915 Watson Road (9)
Ahlering, George H., 4952 Maryland (8)
Aitken, Louis F., 502 Beaumont Bldg. (8)
Albrecht, Franklin H., 607 N. Grand (3)
Alden, Arthur M., 537 Frisco Bldg. (1)
Aldrich, James T., 2621 Franklin (6)
Alexander, Harry L., Barnes Hospital (10)
Alford, Leland B., 607 N. Grand (3)
Allen, Duff S., 18 S. Kingshighway (8)
Allen, Henry C., 212 Clayton Med. Bldg. (5)
Allen, Hollis N., 404 Missouri Theatre Bldg. (3)
Allen, Melvin A., 8000 Seminole (5)
Allen, Willard M., St. Louis Maternity Hosp. (10)
Allen, William E., Jr., 720 N. Sarah (8)
Altheide, J. Paul, 714 Univ. Club Bldg. (3)
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Alvis, Edmund B., 100 N. Euclid (8)
Anstey, George, 4660 Maryland (8)
Arneson, A. N., 457 N. Kingshighway (8)
Arney, William G., 16 Hampton Village Plaza (9)
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Aronberg, Lawrence M., 4950 Lindell (8)
Arzt, Franz, 420 Lido Drive, Ft. Lauderdale, Fla.
AufderHeide, G. Russell, 2326 Noll Dr.
Auner, Cecil R., 1515 Lafayette (4)
Austin, Martin G., 1515 Lafayette Ave. (4)
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Azar, Philip L., 435 Missouri Ave., E. St. Louis, Ill.
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Bailey, Drennan, Missouri Theatre Bldg. (3)
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Baron, William, 3601 S. Jefferson (18)
Barrett, Scott R., 5086 Easton (13)
Bartels, Leo, 205 Frisco Bldg. (1)
Bartlett, Robert W., 929 Univ. Club Bldg. (3)
Bartlett, Willard, Jr., 634 N. Grand (3)
Bartnick, Mitchel L., 3895 Holly Hills (16)
Bassett, Robert B., 5427 Delmar (12)
Bauer, John D., 2415 N. Kingshighway (13)
Bauer, Louis, 2646 Gravois (18)
Bauer, Maria, 1935 Edison Ave., Granite City, Ill.
Bauer, Otto, 1935 Edison Ave., Granite City, Ill.
Baumgarten, Walter, Jr., 3720 Washington (8)
Bawell, Malcolm B., 4660 Maryland (8)
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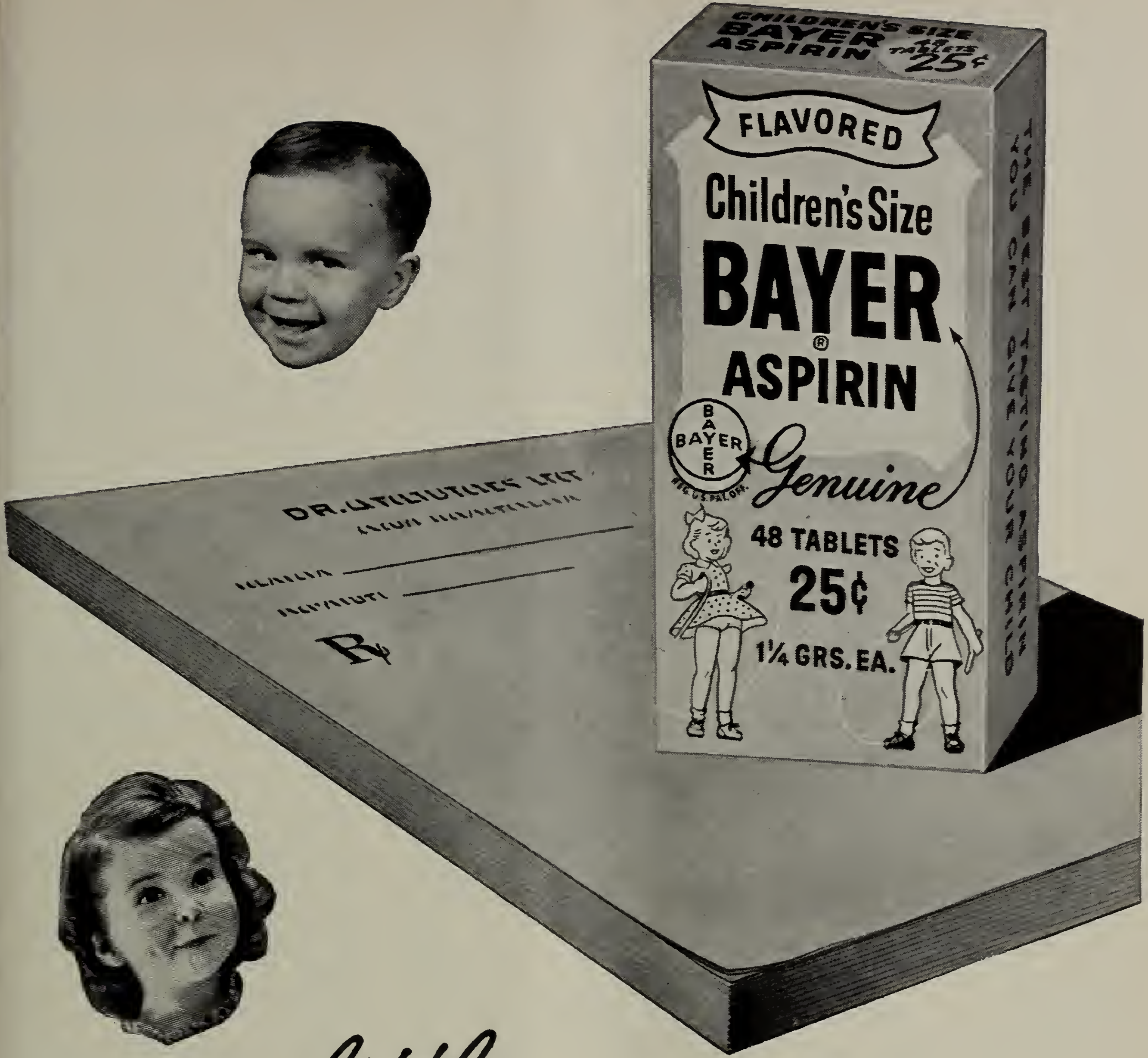
Becke, William G., 912 Beaumont Bldg. (8)
Becker, Bernard, 640 S. Kingshighway (10)
Becker, Edward J., 205 Frisco Bldg. (1)
Becker, George H., 210 Lister Bldg. (8)
Beckette, Edmund S., 320 Lister Bldg. (8)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Berg, Ralph, 3203 S. Grand (18)
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Bergner, Grace E., 114 N. Taylor (8)
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Berman, William, 462 N. Taylor (8)
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Bowdern, Edward H., 16 Sussex Dr., York Woods (17)
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Brereton, Robert L., 206 N. Clay (22)
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Brodeur, Armand E., 141 Horseshoe Dr., Sugar Creek Ranch (22)
Bromberg, Leon, 542 Missouri Theatre Bldg. (3)
Bronson, Shael S., 813 Missouri Theatre Bldg. (3)
Brookes, Henry S., Jr., 37 Alqonquinwood Pl. (19)
Brookes, Robert D., 4652 Maryland (8)
Brooks, Arthur C., 60 Kingsbury Place (12)
Broun, Goronwy O., 1325 S. Grand (4)
Broun, Goronwy O., Jr., 51 Park Drive, Boston, Mass.
Brown, Daniel W., 3275th USAF Hosp., Parks AFB, Pleasanton, Calif.
Brown, E. Eugene, 379 N. Taylor (8)
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Brown, Seymour, 2 Ricardo Lane (24)
Bruce, Helen L., 3263 Hawthorne (4)
Bryan, James H., 330 Beaumont Med. Bldg. (8)
Bryan, William T. K., 330 Beaumont Med. Bldg. (8)
Bublis, Mary D., c/o Veterans Hospital, Temple, Texas
Bublis, Norbert J., Veterans Hospital, Temple, Texas
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Busch, Anthony K., 5300 Arsenal (9)
Butcher, Harvey R., Jr., 600 S. Kingshighway (10)
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Calodney, Martin M., 205 Lister Bldg. (8)
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Campos, Francisco J., 405 Lister Bldg. (8)
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Cappel, Powel B., 3284 Ivanhoe (9)
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Carney, Joseph E., Jr., 525 Frisco Bldg. (1)
Carr, Archie D., 215 Beaumont Bldg. (8)
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Carroll, Grayson, 609 Humboldt Bldg. (3)
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Cason, Elbert H., 3606 Gravois (16)
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Charnas, Raymond M., 727 Missouri Theatre Bldg. (3)
Cherre, Charles J., 1227 Bellevue (17)
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Cleary, Frank, 1935 Park (4)
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Clithero, William H., 906 Carleton Bldg. (1)
Coates, Thomas A., 1200 S. Big Bend (17)
Coffin, Ernest L., Portage, Maine
Cohen, Benjamin H., 15 N. Brentwood (5)
Cohen, Louis, Lister Bldg. (8)
Colbert, James W., Jr., 1402 S. Grand (4)
Collodi, George A., 20 South Cote Rd. (17)
Comens, Ruth C., 6150 Oakland (10)
Connor, John J., 433 Metropolitan Bldg. (3)
Conrad, Adolph H., 512 Beaumont Bldg. (8)
Conrad, Adolph H., Jr., 512 Beaumont Bldg. (8)
Conrad, Marshall B., 41 N. Central (5)
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Crowell, Hugh C., 9764 Tesson Ferry Rd. (23)
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Czebrinski, Edward W., 3701 Grandel Square (8)
Daake, John W., 3817 Flora Pl. (10)
Dahms, Gustave, 1452 S. Grand Blvd. (4)
Dalton, Arthur R., 121 Lister Bldg. (8)
Daman, George A., 5203 Chippewa (9)
Dames, Richard J., 7735a Brookline Terrace (17)
Danis, Peter G., 634 N. Grand (3)
Dankner, Arnold, 110 S. Central (5)
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Davis, Frank L., 620 University Club Bldg. (3)
Davis, Martin W., 490 Oakwood (19)
Davis, Myron W., 718 Beaumont Med. Bldg. (8)
Day, Anthony B., 411 Beaumont Med. Bldg. (8)
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Demko, William, Box 790, R. R. 6, Sappington (23)
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Devine, John B., 16 Hampton Village Plaza (9)
Deyton, John W., 501 Bacon (19)
Diehr, Alvin H., 845 Missouri Theatre Bldg. (3)
DiLeo, Senatro W., 539 N. Grand (3)
Dmytryk, Eugene T., 518 University Club Bldg. (3)
Donahoe, James L., 3440th SU Army Hospital, Fort Benning, Ga.
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Dorsett, E. Lee, 8505 Delmar Blvd. (24)
Doubek, John C., 2767 Gravois (18)
Doyle, Charles R., 906 Missouri Theatre Bldg. (3)
Drace, Charles C., 3702 Gravois (16)
Drace, Charles C., Jr., 19 E. Lockwood (19)
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Drake, William L., Jr., 307 S. Euclid (10)
Drews, Leslie C., 516 Metropolitan Bldg. (3)
Drey, Norman W., 634 N. Grand (3)
Dreyer, Carl J., 204 Kingsville Ct. (19)
Dripps, Roy C., 7702 Ivory (11)
Drum, Clarence G., 1927a N. Union (13)
Duden, Charles W., 1011 Beaumont Med. Bldg. (8)
Duemler, John H., 1504 S. Grand (4)
Dunham, Richard B., 826 Beaumont Bldg. (8)
Dworkin, Saul, 1657 S. Grand (4)
Dyer, Dallas J., 3915 Watson (9)
Eades, Dee W., No. 12 Kingsbury Place (12)
Eagleton, Mark D., 600 S. Kingshighway (10)
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Eberle, John P., 7 Glen Haven Dr. (19)
Eberle, Vincent L., 7510 U.S.A.F. Hospital, APO 240, New York
Echterhoff, Harry R., 945 Missouri Theatre Bldg. (3)
Eck, Birkle, 19 Deercreek Woods (5)

Eckert, Charles L., 600 S. Kingshighway (10)
Eckert, Clarence T., 601 Humboldt Bldg. (3)
Ecklund, Archibald M., Staff Comservlant, Bldg. 142 Naval Base, Norfolk, Va.
Edele, Eugene H., 4971 Chippewa St. (9)
Edwards, Jefferson R., Jr., University of Virginia Hospital, Charlottesville, Va.
Edwards, Joseph C. 1018 Beaumont Medical Bldg. (8)
Efron, Joseph, 3310 USAF Hospital, Scott AFB, Belleville, Ill.
Egley, Loren E., 67 Frederick Lane (22)
Eidelman, Jack, 4652 Maryland (8)
Eidmann, Walter P., 3146 Morganford (16)
Eigel, Edwin G., 3211 S. Grand (18)
Eimer, Charles E., 462 N. Taylor (8)
Ellersieck, Dorothy M., 10695 Bellefontaine Rd. (15)
Elliott, Gladden V., 355 Lynwood Dr., Montgomery, Ala.
Elman, Robert, 600 S. Kingshighway (10)
Emmert, Fred V., 713 Metropolitan Bldg. (3)
Engleman, Reinhold, 6000 W. Florissant (20)
Engman, Martin F., Jr., 601 Beaumont Medical Bldg. (8)
Epp, George J., 3807 Bowen (16)
Erlanger, Herman, 507 S. Euclid (10)
Erlanger, Joseph, 4580 Scott (10)
Ernst, Edwin C., 100 Beaumont Medical Bldg. (8)
Ernst, Edwin C., Jr., 100 Beaumont Medical Bldg. (8)
Ernst, Roland P., 3720 Washington (8)
Eskeles, Irwin H., 4500 Olive (8)
Esker, George, 5600 Arsenal (9)
Esslinger, Arthur T., 457 N. Kingshighway (8)
Eto, Jackson, 634 N. Grand (3)
Eyermann, Charles H., 1102 Missouri Theatre Bldg. (3)
Falk, Oswald P. J., 18 S. Kingshighway (8)
Farley, William M., 3108 S. Grand (18)
Farrar, John T., 78 Mayo Ave., Greenwich, Conn.
Farrell, Robert J., 624 N. Union (8)
Farris, William W., 3505 N. Grand (7)
Feinstein, Leon A., 705 Olive (1)
Feldman, David, 601 Humboldt Bldg. (3)
Feller, Harold H., 2739 N. Grand (6)
Fellhauer, Carl M., 920 Missouri Theatre Bldg. (3)
Ferguson, Thomas B., 600 S. Kingshighway Blvd. (10)
Fineberg, Maxwell, 607 N. Grand (3)
Fingerhood, Marvin G., 4652 Maryland (8)
Finnegan, Frank R., 201 Humboldt Bldg. (3)
Finnegan, Joseph V., 633 Metropolitan Bldg. (3)
Fischer, Erich, 10 Pasteur Bldg. (8)
Fischer, Harry W., 515 Lake (19)
Fish, Virgil O., 780 Yale (5)
Fisher, Arthur O., 816 Beaumont Bldg. (8)
Fisher, Harry E., Jr., 600 S. Kingshighway (10)
Fitzgerald, Leo P., 6677 Delmar (5)
Flance, Israel J., 4652 Maryland (8)
Flavan, David B., 401 Humboldt Bldg. (3)
Fleishman, Alfred, 462 N. Taylor (8)
Fletcher, Paul F., 517 Missouri Theatre Bldg. (3)
Flotte, Bernard H., 2435 N. Grand (6)
Flynn, Edward P., San Diego Naval Hospital, San Diego, Calif.
Flynn, John T., 1715 S. 39th St. (10)
Flynn, Joseph E., 1617 S. Brentwood (17)
Ford, Lee T., Jr., 45 Green Acres (15)
Forsen, James A., 401 Wall Bldg. (8)
Forster, Armand C., 1504 S. Grand (4)
Forti, John J., 4703 Carter (15)
Foster, Howard M., 2025 North & South Rd. (14)
Foster, Leon, 727 Missouri Theatre Bldg. (3)
Fox, Robert E., 539 N. Grand (3)
Frank, Adolph M., 3701 Grandel Square (8)
Franklin, Max S., 727 Missouri Theatre Bldg. (3)
Freedman, Harold, 717 University Club Bldg. (3)
Freedman, Ruth S., 607 N. Grand Blvd. (3)
Freeman, David M., 7316 Kingsbury (5)
Freimuth, L. E., 217 University Club Bldg. (3)
Frerking, Herbert W., 5535 Delmar (12)
Freund, Newton M., 1119 Surrey Hill (17)
Freund, Samuel J., 4409 W. Pine (8)
Friedman, Bernard, Robert Koch Hospital, Koch
Fries, Armand D., 974 Arcade Bldg. (1)
Fries, John W., 430 Sunningwell Dr. (19)
Fries, William A., 3840a Fillmore (16)
Friskel, Arthur K., 7422 Devonshire (19)
Fritschel, Godfrey C., 3306 S. 13th St. (18)
Fryer, Minot P., 400 Metropolitan Bldg. (3)
Funsch, Edwin C., 614 Beaumont Bldg. (8)
Funsch, Robert E., 894 Alanson Dr. (24)
Furla, Gus J., 1773 High School Dr. (17)
Furlow, Leonard T., 530 Beaumont Bldg. (8)
Gafney, George T., 7260 Pershing (5)
Gaines, John F., Rt. 3, Box 392, Oklahoma City, Okla.
Gale, Philip R., 125 Orchard (19)
Gallagher, John F., 1440 Spoede Rd. (24)
Gallagher, William J., 7214 Greenway (5)
Gansloser, Maximilian W., 3624 Arsenal (16)
Gansloser, Wilbert M., 6376 Clayton Rd. (17)
Garfinkel, Bernard T., 457 N. Kingshighway (8)
Gay, Lee P., 515 E. High St., Jefferson City
Gerst, Aloysius C., 8700 Riverview (21)
Gerwitz, Bernard W., 16 Hampton Village Plaza (9)
Gibson, Helen F., Carleton Bldg. (1)
Gildea, Edwin F., 4940 Audubon (10)
Gildea, Margaret C. L., 4500 W. Pine (8)
Gillespie, William J., 7522 Harter (17)
Gissy, Charles J., 617 Metropolitan Bldg. (3)
Glaser, Martin J., 420 Mississippi Trust Bldg. (1)
Glassberg, Bertrand Y., 5850 Waterman (12)
Glennon, William P., 634 University Club Bldg. (3)
Glick, Harry N., 1504 S. Grand (4)
Gnade, Albert J., 3606 Gravois (16)
Goebel, Joan M., 5128 Jamieson (9)
Goldenson, Max J., 433 Metropolitan Bldg. (3)
Goldfarb, Alvin, 23 Bon Hills Dr. (24)
Goldman, Alfred, 1215 Missouri Theatre Bldg. (3)
Goldman, Melvin L., 1215 Missouri Theatre Bldg. (3)
Gorla, Wayne O., 202 Lindell Trust Bldg. (6)
Gradwohl, Rutherford B. H., 3514 Lucas (3)
Graham, David T., 600 S. Kingshighway (10)
Graham, Evarts A., Washington University Medical School (10)
Graneto, Joseph A., 5521 S. Broadway (11)
Grant, Samuel B., 114 N. Taylor (8)
Graul, Elmer G., 2838 S. Grand (18)
Graul, Walter P., Beaumont Medical Bldg. (8)
Grebel, Clement B., 16 Hampton Village Plaza (9)
Greditzer, Arthur S., 4500 W. Pine (8)
Greiner, Theodore, 7507 Washington (5)
Griggs, James Y., 508 S. Main St., Benld, Ill.
Grindon, Joseph, Jr., 539 N. Grand (3)
Grogan, Frank M., 4166 Flora (10)
Gross, Joseph L., 729 Missouri Theatre Bldg. (3)
Grueb, Paul M., 3402a California (18)
Gruenfeld, Gerhard E., 201 Lister Bldg. (8)
Grybinas, Vytautas J., 1st Inf. Div., Ft. Riley, Kan.
Guccione, Joseph B., 2801 N. Taylor
Gulick, Charles R., 47 West Drake (19)
Gum, William R., 2227 S. Broadway (4)
Gummels, Belmont B., 1116 McCausland (17)
Gundlach, Arthur, 2202 University (7)
Gunn, Walter T., 4617 Dahlia (16)
Guze, Samuel B., 600 S. Kingshighway (10)
Gzell, Ronald, 5189 Kensington (8)
Hackmeyer, Rubin, 4065 S. Grand (18)
Haddock, James N., 111 Firwood Dr. (19)
Haffner, Heinz, 3720 Washington (8)
Hagebusch, Omer E., 3714 Washington (8)
Hager, Victor K., 4922a Hampton (9)
Hall, Andy, Jr., 301 University Club Bldg. (3)
Hall, Lee A., 35 N. Central (5)
Hall, Preston C., 4243 Lafayette (10)
Hall, Robert A., 43 Washington Terrace (12)
Hamilton, Eugene G., 8505 Delmar (24)
Hamilton, William P., 24 Gast Place (15)
Hammond, John J., 734 Missouri Theatre Bldg. (3)
Hampton, Stanley F., 1018 Beaumont Med. Bldg. (8)
Hanford, Wesley W., 601 University Club Bldg. (3)
Hankin, Norman M., 16 Hampton Village Plaza (9)
Hanlon, C. Rollins, 1325 S. Grand (4)
Hanna, Richard E., 5535 Delmar (12)
Hansel, French K., 1222 Missouri Theatre Bldg. (3)
Hanser, S. Albert, 924 Arcade Bldg. (1)
Hanser, Theodore H., 3701 Grandel Square (8)
Hardy, Joseph A., Jr., 4952 Maryland (8)
Harell, Alex, 216 Wall Bldg. (8)
Harford, Carl G., 600 S. Kingshighway (10)
Harkin, James C., 600 S. Kingshighway (10)
Harkins, William B., 218 Beaumont Medical Bldg. (8)
Harmann, Martin F., 206 Lindell Trust Bldg. (6)
Harper, Fleming B., 600 S. Kingshighway (10)
Harris, Charles W., 5298 Page (13)
Harris, Downey L., 706 Metropolitan (3)
Harris, Irwin J., 7427 Bland Dr. (5)
Harris, Solon P., 6826 Natural Bridge (20)
Harrison, Lee B., 601 University Club Bldg. (3)
Harting, Hugh R., 3715 Washington (8)
Hartman, Howard E., 3310th USAF Hospital, Scott AFB, Ill.
Hartman, Paul T., 6376 Clayton (17)
Hartmann, Alexis F., 500 S. Kingshighway (10)
Hartnett, Dalton C., 422 Missouri Theatre Bldg. (3)
Hartnett, Leo J., 422 Missouri Theatre Bldg. (3)
Hartwig, John A., 2807 N. Grand (7)
Haskins, Arthur L., 630 S. Kingshighway (10)
Hassett, Henry A., 618 University Club Bldg. (3)
Hawk, Bray O., 4660 Maryland (8)
Hawker, William D., 16 Hampton Village Plaza (9)
Hawkins, George L., Jr., 625 University Club Bldg. (3)
Hayden, Loyola F., 730 Hodiamont (12)
Haynes, James W., 404 Missouri Theatre Bldg. (3)
Haynes, Pugh, Jr., 3720 Washington (8)
Heideman, Alvah G., 723 Metropolitan Bldg. (3)
Heifetz, Carl J., 457 N. Kingshighway (8)
Heinbecker, Peter, Barnes Hospital (10)
Helbing, Harry H., 5475 Cabanne (12)
Henderlite, John W., 408 Lister Bldg. (8)
Henke, Charles F., 3109 S. Grand (18)
Hennelly, John J., 16 Hampton Village Plaza (9)
Hennerich, Walter E., 5670 Arsenal (9)
Henschel, Eugene V., 6200 Hoffman (9)
Herman, Morris, 3701 Grandel Square (8)
Herrick, Harold C., 5747 Bartmer (12)
Heusler, Anton F., 5400 Arsenal (9)
Hewitt, Walter R., 7649 Delmar (5)
Heyer, Oscar C., 8015 S. Broadway (11)
Hickey, Robert F., 916 Missouri Theatre Bldg. (3)
Hickman, Eugene A., 33 Berkley Sq., Los Angeles, Calif.
Hildreth, H. Rommel, 1030 Beaumont Medical Bldg. (8)
Hines, Arthur A., 10695 Bellefontaine Rd. (15)
Hobart, Carl A., 3601a Gravois (16)
Hoefer, Walter H. V., 3108 S. Grand (18)
Hoffman, Augustin D., 6222 Delor (9)
Hoffmann, Ronald E., U. S. Naval Hospital, Great Lakes, Ill.
Hofstatter, Leopold, 16 Hampton Village Plaza (9)
Hofstatter, Lilli, 10053 Lakeside Dr. (23)
Holbrook, Charles K., 9901 Diamond Dr. (15)

Holdenried, William E., 4131 Tholozan (16)
Hollo, Vencel W., 4960 Laclede (8)
Holt, Earl P., Jr., 5444 Clemens (12)
Homan, J. S., 4903 Delmar (8)
Honich, Nicholas J., 8902 Riverview (21)
Horner, John L., 114 N. Taylor (8)
Horwitz, Irwin B., 504 Metropolitan Bldg. (3)
Hosto, Leland E., 4909 Lindenwood (9)
Houston, Vincent T., 7820 Carondelet (5)
Hrdlicka, Victor E., 1020 Missouri Theatre Bldg. (3)
Huber, Erwin T., 913 Missouri Theatre Bldg. (3)
Huggins, Albert M., 734 Missouri Theatre Bldg. (3)
Hulbert, Bernard, 16 Pasteur Medical Bldg. (8)
Hummel, Anton J., 416 Metropolitan Bldg. (3)
Humphrey, Harvey A., 510 S. Kingshighway Blvd. (10)
Hunter, Charles H., D. C. General Hospital, 19th & E Sts., S. E., Washington, D. C.
Hurley, James W., 1515 Lafayette (4)
Hutchinson, James H., Jr., 114 N. Taylor (8)
Hutto, A. Herman, 105 Lister Bldg. (8)
Hutton, Joseph L., 902 S. Side National Bank Bldg. (16)
Hyman, Anna, 5400 Arsenal (9)
Hyndman, Charles E., 714 Beaumont Medical Bldg. (8)
Inkley, John J., 5203 Chippewa (9)
Israel, Milton R., 311 Hillside (19)
Ittner, George W., Jr., 901 Beaumont Medical Bldg. (8)
Izmirlian, Grant, 731 E. Big Bend (19)
Jacobs, Charles C., 878 Melvin (15)
Jacobson, Donald J., Christie Clinic, Champaign, Ill.
James, Norman A., 9903 Diamond Dr. (15)
James, William M., 1030 Beaumont Medical Bldg. (8)
Janney, James G., Jr., 35 N. Central (5)
Jaudon, Joseph C., 7803a Clayton Rd. (17)
Javaux, Everett J., 405 University Club Bldg. (3)
Jean, J. Ted, 4500 W. Pine (8)
Jensen, J. Ernest, 1140 Missouri Bldg. (3)
Jim, Robert T. S., 600 S. Kingshighway (10)
Johnson, Charles H., 4148 Federer Place (16)
Johnson, Mitchell D., 40 N. Florissant Rd. (21)
Johnstone, John, Jr., 1011 Beaumont Medical Bldg. (8)
Jonas, Harry S., Jr., 5535 Delmar (12)
Jones, Andrew B., 322 Beaumont Medical Bldg. (8)
Jones, Augustin, 634 N. Grand (3)
Jones, Grey, 215 Lister Bldg. (8)
Jones, Otey S., 3616 S. Broadway (18)
Jones, Richard A., 332 Calvert (19)
Jones, Vincent L., 645 Missouri Theatre Bldg. (3)
Jones, William E., 110 S. Central (5)
Jordan, Edward J., 412 Nichols Bldg. (4)
Jordan, Walter R., 3903 Olive (8)
Jorel, Louis E., 1515 Lafayette (4)
Jorstad, Louis H., 411 Beaumont Medical Bldg. (8)
Joseph, Donald J., 8162d A. U. APO 45, San Francisco, Calif.
Joslyn, Harold L., 521 Missouri Theatre Bldg. (3)
Jost, Charles A., 6000 W. Florissant (20)
Judy, Joseph, 212 S. Florissant (21)
Jungk, Carl G. W., 2278 S. Jefferson (4)
Kamakas, Nicholas, 937 Airport Rd. (21)
Kane, Clyde E., 706 Walton (8)
Kane, R. Emmet, 1117 N. Grand (6)
Kaplan, Albert, 726 Country Club Dr. (21)
Kappesser, Netajean B., 7044 Lindell (5)
Kappesser, Roland C., 7044 Lindell (5)
Karandjeff, A. D., 811 Metropolitan Bldg. (3)
Karl, Michael M., 4652 Maryland (8)
Kaskie, Clifford R., 35 N. Central (5)
Katz, Samuel D., 825 Midland (5)
Keating, John U., Anolate Manor, Tarpon Springs, Fla.
Keeble, Charles B., 3102 S. Grand (18)
Keenoy, John J., 501 Metropolitan Bldg. (3)
Keffler, Karl L., 1139 Bellevue (17)
Kehoe, John J., 4145 S. Louis (15)
Keim, John P., 2730 McNair (18)
Keller, Joseph M., 416 Metropolitan Bldg. (3)
Keller, Louis, 35 N. Central (5)
Keller, Maurice J., 3701 Grandel Square (8)
Kellett, John G., 243 Kenora Ct. (19)
Kelley, Isaac D., Jr., 476 N. Kingshighway (8)
Kelley, Robert W., 622 Beaumont Medical Bldg. (8)
Kelly, Charles A., 3606 Gravois (16)
Kelly, R. Emmet, 1700 S. Second (4)
Kenamore, Bruce, 600 Union (8)
Kennedy, Francis L., 19 Thorndell Dr. (17)
Kerr, David N., 4500 Olive (8)
Kettelkamp, George D., 4931 Potomac (9)
Keyes, Edward L., 100 N. Euclid (8)
Kieffer, Roland S., 100 N. Euclid (8)
Kieffer, Victor B., Jr., 100 N. Euclid (8)
Kienzle, Edward C., 4075 S. Grand (11)
King, Francis C., 49 Fair Oaks (17)
King, John V., 689 E. Big Bend Rd. (19)
King, Samuel J., 800 Carleton Bldg. (1)
Kinner, Helmuth M., 3014 S. Jefferson (18)
Kinsella, Dalton L., Jr., Jackson Memorial Hospital, Miami, Fla.
Kinsella, Ralph A., 415 Beaumont Medical Bldg. (8)
Kinsella, Ralph A., Jr., 9084 W. Swan Circle (17)
Kirchner, Walter C. G., 7452 Wise (17)
Kirstein, Melvin B., 209 University Club Bldg. (3)
Kirtz, Louis P., 4952 Maryland (8)
Kistner, William F., 7843 Gannon (24)
Klaff, Daniel D., 309 Beaumont Medical Bldg. (8)
Klein, Andrew G., 2959 Milton (4)
Klein, Arnold G., 2632 S. Kingshighway (9)
Klein, Arthur, 502 Greenlawn Dr., Hyattsville, Md.
Klein, Bert, 2632 S. Kingshighway (9)
Klein, Harry A., 5074 N. Union (15)
Kleinschmidt, Clinton, 7624 Maryland (5)
Klenk, Charles L., 420 Metropolitan Bldg. (3)
Klinge, Frederick W., 600 S. Kingshighway (10)
Klippel, Bernhardt W., 3701 Grandel Square (8)
Klym, Nicholas, 3626-28 N. 11th (7)
Kneal, E. Ellsworth, 921 Missouri Theatre Bldg. (3)
Knese, Luke A., 1506 Hodiamont (12)
Knight, Franklin P., 9746 Colony Dr. (15)
Knight, William A., 8201 N. Broadway (15)
Knight, William A., Jr., 4161 Lindell (8)
Knoke, Frederick W., Jr., 4535 Wabash (9)
Knowlton, Norman P., Jr., 939 Golf Course Dr. (24)
Koenig, George H., 5135 31st Ave. S., St. Petersburg, Fla.
Koenig, Karl F., 502 Beaumont Medical Bldg. (8)
Kohler, Eugene J., 4968a Delmar (8)
Kohler, Louis H., 5300 Arsenal (9)
Komanetsky, W. M., 6400 Morganford Rd. (16)
Koon, Bernard T., 4755 Morganford Rd. (16)
Kopp, Leonard J., 7844 Madison Dr. (14)
Korn, Robert L., 8230 Forsyth (24)
Kotkis, Alexander J., 80 York Dr. (17)
Kotner, Lawrence M., 4409 W. Pine (8)
Kountz, William B., 415 Lister Bldg. (8)
Kouri, Martin F., 4475 W. Pine (8)
Koutsoumpas, William V., 1405 S. Broadway (4)
Kowert, Edward H., 3720 Washington (8)
Kraft, Edward O., 2019 St. Clair (17)
Kramer, Fred, 4161 Lindell (8)
Kramolowsky, Helmuth H., 986 Arcade Bldg. (1)
Kraner, Justin F., 4409 W. Pine (8)
Krause, G. Lynn, 614 Beaumont Medical Bldg. (8)
Krebs, Joseph M., 910 Missouri Theatre Bldg. (3)
Krebs, Otto St. Clair, 207 Beaumont Medical Bldg. (8)
Kromer, Charles, 6606 Oleatha (9)
Kubitschek, Paul F., 207 Beaumont Medical Bldg. (8)
Kuebrich, Thomas C., 9a S. Florissant Rd. (21)
Kurtzeborn, Edwin E., 4120 Leona St., Tampa 9, Fla.
Kurz, Rudolph F., 1148 Pierce Bldg. (2)
Ladd, Charles B., 7430 Virginia (11)
LaDriere, Raymond J., 35 N. Central (5)
Lakes, John D., 1907 Delmar Ave., Granite City, Ill.
Lam, Robert L., Doctors Bldg. (8)
Lamb, Wanda, 4500 W. Pine (8)
Landau, William M., 640 S. Kingshighway (10)
Landree, James C., Melbourne Hotel (8)
Lane, Clinton W., 440 Beaumont Medical Bldg. (8)
Langan, William J., Jr., 5803 Plymouth (12)
Lange, Adolph C., 512 Wall Bldg. (8)
Lanier, Earl W., 3731 Goodfellow (20)
Lansche, Elmer A., 6303 Natural Bridge (20)
Larimore, Joseph W., 626 Beaumont Medical Bldg. (8)
Larsen, Kenneth V., 819 University Club Bldg. (3)
Lassar, Gilbert N., 1307 Washington (3)
Lawrence, George H., 504 University Club Bldg. (3)
Lawrence, John V., 4534 W. Pine (8)
Lawton, John T., 410 N. Newstead (8)
Lawton, Lawrence W., 2801 N. Taylor (15)
Lawton, Thomas P., 2739 N. Grand (6)
LeBlanc, Leo J., 801 Beaumont Medical Bldg. (8)
Lederman, Joseph, 2400 N. Grand (6)
Lembeck, Joseph A., 601 University Club Bldg. (3)
Lenobel, Milton I., 16 Granada Way (24)
Lerwick, Everett R., 5342 Mardel (9)
Levin, Sidney S., 440 N. Taylor (8)
Levitt, Joseph, 5815a Highland (12)
Levy, Irwin, 4952 Maryland (8)
Lewis, James E., Jr., 1325 S. Grand (4)
Leydig, Stanley M., 16 Hampton Village Plaza (9)
Lieb, Francis X., 634 N. Grand (3)
Lieb, Otto, 307 Lister Bldg. (8)
Lieberman, David M., 457 N. Kingshighway (8)
Liebmann, Fritz M., 919 N. Taylor (8)
Liese, Grover B., 321 Beaumont Medical Bldg. (8)
Liggett, Hiram S., 401 Beaumont Medical Bldg. (8)
Lindeman, Carl H., 307 S. Euclid (10)
Lipsitz, Ellis S., 457 N. Kingshighway (8)
Lischer, Carl E., 457 N. Kingshighway (8)
Littauer, David, 216 S. Kingshighway (10)
Littmann, Lewis E., 8231 Clayton Rd. (17)
Litzow, Louis T., 1114 Missouri Theatre Bldg. (3)
Loeb, Virgil, 4406 McPherson (8)
Loeb, Virgil, Jr., 100 N. Euclid (8)
Loeffel, Ellen S., 635 Beaumont Medical Bldg. (8)
Lohr, Curtis H., 601 Brentwood (5)
Londe, Sol, 201 Lister Bldg. (8)
Lonergan, Warren M., 457 N. Kingshighway (8)
Lonsway, Maurice J., 8225 Clayton Rd. (17)
LoPiccolo, Vincent J., 1931 Marconi (10)
Lottes, James O., 16 Hampton Village Plaza (9)
Lowenstein, Paul S., 12 Hillvale Dr. (5)
Lucido, Joseph L., 1023 Missouri Theatre Bldg. (3)
Luedde, Philip S., 16 Hampton Village Plaza (9)
Lund, Herluf G., 2864 Lawndell Dr. (17)
Lund, Robert H., 600 S. Kingshighway (10)
Luten, Drew W., 502 Beaumont Medical Bldg. (8)
Lutz, Martin H., Lincoln Mercury Div., Ford Motor Co., Robertson
Lyman, Edward H., 906 Carleton Bldg. (1)
Lynxwiler, Chester P., 1325 S. Grand (4)
Lyttle, Garnet C., 2407a N. Broadway (6)
Lytton, William B., 29 Overhill Dr. (17)
McAdam, Charles R., 525 Frisco Bldg. (1)
McAfee, C. Alan, 457 N. Kingshighway (8)
McCarroll, Henry R., 3720 Washington (8)
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McFadden, James F., 4 Ridgemoor Dr. (5)
McFadden, James F., Jr., 940 Missouri Theatre Bldg. (3)
McGennis, Patrick, P. O. Box 603 (1)
McGinnis, Albert E., 600 S. Kingshighway (10)
McGinnis, Byron J., 16 Hampton Village Plaza (9)
McLelland, Richard I., 8515 Delmar (24)
McMahan, John H., 5400 Arsenal (9)
McMahon, Alphonse, 816 Missouri Bldg. (3)
McMahon, Bernard J., 8230 Forsyth (24)
McNamara, John J., 10300 St. Charles Rock Rd. (14)
McNamee, Owen J., 7619 Ivory (11)
McNamee, William F., 7619a Ivory (11)
McNeel, John O., 1127 Pine (1)
McSwiney, John G., 5014 Thekla (15)
Maas, Hermann, 827 Metropolitan Bldg. (3)
MacBryde, Cyril M., 1333 W. Adams Rd. (22)
Macdonald, William C., 201 Humboldt Bldg. (3)
Mack, Robert E., Radioisotope Clinic, Walter Reed Army Hospital, Washington, D. C.
Mackey, John F., Jr., 228 Beaumont Medical Bldg. (8)
Macko, Joseph R., Missouri Theatre Bldg. (3)
Macnish, James M., 4405 W. Pine (8)
Macon, William L., Jr., 7200 Manchester (17)
Magallon, Dorothy T., State T. B. Hospital, Bluegrass Ave., Louisville, Ky.
Magallon, Robert A., State T.B. Hospital, Bluegrass Ave., Louisville, Ky.
Maher, Thomas F., 1015 Missouri Theatre Bldg. (3)
Mailman, Gershom, 915 N. Grand (6)
Maizus, Saul H., 5845 Devonshire (9)
Malles, A. Conrad, 819 University Club Bldg. (3)
Manganaro, Ross A., V. A. Hospital, Jefferson Barracks (23)
Manion, Peter J., 3915 Brannon (9)
Mannis, Ben G., 846 N. McKnight Rd. (24)
Mansbacher, Kurt, 462 N. Taylor (8)
Manting, George, 4903 Delmar (8)
Markivee, Carroll R., 915 N. Grand (6)
Marston, Warren G., 607 N. Grand (3)
Martin, Charles E., 4020 W. Florissant (7)
Martin, Maynard W., St. Lukes & Texas Children's Hospital, Houston, Texas
Martin, Raymond T., 5203 Chippewa (9)
Martin, Thomas M., 937 Missouri Theatre Bldg. (3)
Mason, Roy E., Frisco Bldg. (1)
Massie, Edward, 457 N. Kingshighway (8)
Masters, William H., 630 S. Kingshighway (10)
Mastin, E. Vernon, 930 Beaumont Medical Bldg. (8)
Mathae, George H., 3167 S. Grand (18)
Matthews, John G., 3707 Watson Rd. (9)
Mattis, Robert D., 1119 Missouri Theatre Bldg. (3)
Maughs, Sydney B., 4500 W. Pine (8)
Max, Clarence O. C., 701 Beaumont Medical Bldg. (8)
Max, Paul F., 701 Beaumont Medical Bldg. (8)
Maze, Lawrence E., 630 S. Kingshighway (10)
Medler, Francis J., 4118 W. Florissant (15)
Mehan, George T., 414 Wall Bldg. (8)
Meinberg, William H., 329 Frisco Bldg. (1)
Meiners, Edwin P., 6651 Enright (5)
Meiners, Theodore M., 922 Newport (19)
Meisenbach, A. Edward, Wall Bldg. (8)
Melick, William F., 306 Humboldt Bldg. (3)
Mellies, Eugene G., 7518 Forest View Drive (21)
Mellies, George A., 2917 St. Louis (6)
Mellis, Richard T., 1515 Lafayette
Mendonsa, Lawrence E., 837 University Club Bldg. (3)
Merenda, Sam J., 45 Berry Road Park (19)
Merklin, Anton L., 3507 Potomac (18)
Metz, Charles O., 3102a S. Grand (18)
Meyer, Curtis A., 6534 Walsh (9)
Meyer, Herman M., 4409 W. Pine (8)
Meyer, Oscar D., 6029 S. Kingshighway (9)
Meyerhardt, Milton H., 4409 W. Pine (8)
Meyers, John B., 3903 Olive (8)
Meyers, Montague M., 1300 Grant Rd. (19)
Mezera, Raymond A., 7135 Forsyth (5)
Michael, Vernon E., Arcade Bldg. (1)
Michaelree, John F., 2816 Sutton (17)
Middleman, Isadore C., 462 N. Taylor (8)
Mier, Thomas M., 703 University Club Bldg. (3)
Milder, Benjamin, 100 N. Euclid (8)
Miller, Charles W., 408 Humboldt Bldg. (3)
Miller, H. Edward, 425 Oak (19)
Millikin, Lester A., 2608 S. Kingshighway (9)
Mills, Warren B., 1420 Grattan (4)
Milster, Clyde R., 411 Frisco Bldg. (1)
Mistachkin, Norman L., Romany Park (24)
Moeller, Carl E., 3537 S. Jefferson (18)
Molholm, Hans B., 1960 West Broad St., Columbus, Ohio
Montani, Charles, 5147 Daggett (10)
Moore, Carl V., 600 S. Kingshighway (10)
Moore, Neil S., 7299 Westmoreland Dr. (5)
Moore, Sherwood, Barnes Hospital (10)
Morfit, John C., 7112 Wydown (5)
Morrin, Kevin C., 5251 Westminster (8)
Morris, Harvey E., 8005 Audrain Drive (21)
Morris, Mary E., 719 Metropolitan Bldg. (3)
Moskop, Peter G., 3736 Dunnica (16)
Motzel, Albert J., 6238 Washington (5)
Mountjoy, Grace S., 4439 Floriss Place (15)
Mowrey, William O., 3633 Fair (15)
Moyer, Carl A., 7516 Washington (5)
Muckerman, Richard I. C., 433 Missouri Theatre Bldg. (3)
Mudd, J. Gerard, 9900 Litzsinger Rd. (17)
Mudd, James L., 914 Missouri Theatre Bldg. (3)
Mueller, Charles B., 5238 Murdock (9)
Mueller, Clarence E., 1020 Missouri Theatre Bldg. (3)
Mueller, Joseph A., 3177 S. Grand (18)
Mueller, Morris A., 11 Long Meadows (24)
Mueller, Robert, 975 Arcade Bldg. (1)
Mueller, Robert J., 16 Hampton Village Plaza (9)
Mueller, W. K., 1160 S. McKnight Rd. (17)
Muenster, Joseph J., Jr., 1753 W. Congress St., Chicago, Ill.
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Mulligan, Leo V., 916 Missouri Theatre Bldg. (3)
Munsch, Augustus P., 306 Humboldt Bldg. (3)
Munsch, Girard A., 35 N. Central (5)
Murphy, James P., 934 University Club Bldg. (3)
Murphy, John P., 308 Lister Bldg. (8)
Murphy, Paul, 714 Metropolitan Bldg. (3)
Murray, Louis F., 605 Russell Blvd. (4)
Mutshnick, Clara P., 3103 Shenandoah (4)
Myers, E. Lee, 5353 Eastwood Drive, Cincinnati, Ohio
Naryka, Joseph J., 306 Humboldt Bldg. (3)
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Nash, Helen E., 1048 N. Vandeventer (13)
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Neilson, Charles H., 306 Humboldt Bldg. (3)
Nemec, Stanley S., 205 Wall Bldg. (8)
Nester, Charles A., 3921 Federer Place (16)
Nester, Gerard A., 5600 S. Compton (11)
Neumann, Roland F., Jr., 418 Beaumont Medical Bldg. (8)
Neun, William F., 5862 Delor (9)
Newman, Harold G., 3720 Washington (8)
Newman, Percy, 3539 Hartford (18)
Nichols, Charles E., 7200 Manchester (17)
Nicholson, Clarence M., Pennsylvania Hotel, St. Petersburg, Fla.
Nicolai, Charles H., 20 Terrace Gardens (22)
Niedermeyer, George J., 3923 Watson Rd. (9)
Niesen, Frank J., 4209 S. Kingshighway (9)
Noah, Joseph W., 625 University Club Bldg. (3)
Nofles, James W., 4108a Easton (13)
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Norton, Wm. H., 729 Missouri Theatre Bldg. (3)
Norval, Mildred A., 6261 Clemens
Nye, Robert S., 3201 Arsenal (18)
Obermeyer, Charles G., 3103 Arsenal (18)
O'Brien, Edward C., 915 N. Grand (6)
O'Brien, Robert M., 4161 Lindell (8)
Odell, Richard T., 816 Beaumont Medical Bldg. (8)
O'Donnell, Joseph V., 408 Humboldt Medical Bldg. (3)
O'Dowd, James A., 2919 S. Kingshighway (9)
Oetter, Donald L., 730 Hodiamont (12)
Ogura, Joseph H., 1038 Winwood Dr. (24)
Ohmoto, Masao, 607 N. Grand (3)
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O'Leary, James L., 660 S. Kingshighway (10)
Olmsted, William H., 1011 Beaumont Medical Bldg. (8)
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Palazzo, Frank A., 4161 Lindell (8)
Paletta, Francis X., 940 Missouri Bldg. (3)
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Parker, Thomas W., 7298 Greenway Dr. (5)
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Penney, David L., 317 Wall Bldg. (8)
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Pernoud, Flavius G., Jr., 841 Audubon Dr. (5)
Pernoud, Michael F., 51 Frontenac (24)
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Peugnet, Hubert B., 718 University Club Bldg. (3)
Pfaff, John, Jr., 1402 S. Grand (4)
Pfeifer, Oliver C., 6567 Murdock (9)
Pickrell, Claude D., 406 Frisco Bldg. (1)
Piekarski, Anthony A., 1525 Cass (6)
Pitzman, Marsh, 6 Kingsbury Place (12)
Plag, Albert F., 3150 Morganford Rd. (16)
Platt, Wm. Rady, 919 N. Taylor (8)
Plesons, John D., 3632 Bates (16)
Ploehn, Emma, 2728 Geyer (4)
Ploussard, John H., 219 Lister Bldg. (8)
Plumpe, W. Tupper, 4415 Minnesota (11)
Pollack, Maxwell A., 311 Metropolitan Bldg. (3)
Pollock, Ellis L., Miami Inspiration Hospital, Miami, Arizona
Popovich, Paul J., 6102 Oakland (10)
Popp, Carl G., 307 S. Euclid (10)

Porporis, Arthur A., 510 S. Kingshighway (10)
Portuondo, Bonaventura C., 3532 Flora Court (4)
Post, Lawrence T., 524 Metropolitan Bldg. (3)
Post, M. Hayward, 100 N. Euclid Ave. (8)
Potashnick, Robert, 824 Metropolitan Bldg. (3)
Pote, Thomas B., 4925 Park View Place (10)
Potter, Allen B., 120 Jefferson Dr., Bowling Green
Powell, Carl A., 3643 Washington (8)
Powell, Earl A., 517 Beaumont Medical Bldg. (8)
Powell, Rudolph V., 512 Beaumont Bldg. (8)
Powers, Pierce W., 1106 Missouri Bldg. (3)
Powers, William E., 510 S. Kingshighway (10)
Pranger, Sylvester H., 4952 Maryland (8)
Presnell, Cleitus A., 634 N. Grand (3)
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Proetz, Arthur W., 1010 Beaumont Bldg. (8)
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Pruett, Hubert S., 2739 N. Grand (6)
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Quinn, Abram T., 6917 Fyler (9)
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Rainey, Robert, 4905 Lindell (8)
Ramos, Raoul L., U.S.V.A. Hospital, Poplar Bluff, Mo.
Ready, James H., R. R. 2, Shackleford Rd., Florissant
Reh, Edward P., 4500 Olive (8)
Reich, Harry A., 6230 Devonshire (9)
Reichert, M. Cecelia, 5209 Nottingham (9)
Reiches, Aaron J., 4500 Olive (8)
Reid, William F., 611 Chamberlayne Ave., Richmond, Va.
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Reineck, John A., 2301 S. Kingshighway (10)
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Rendleman, George F., 933 Arcade Bldg. (1)
Repetto, Albert M., 607 N. Grand (3)
Reuter, Louis A., 2625a N. 9th (6)
Rice, Earl R., 611 Olive (1)
Richman, Elmer, 8230 Forsyth (24)
Ries, Douglas A., 635 Missouri Theatre Bldg. (3)
Rifkin, Shale M., 830 Beaumont Bldg. (8)
Riggio, Salvatore N., 7 7th St., Edwards, Calif.
Riley, John J., 737 Missouri Theatre Bldg. (3)
Riley, Philip A., Jr., Walter Reed Army Medical Center, Washington, D. C.
Riley, Ralph D., 1134 Missouri Bldg. (3)
Riley, William H., 4660 Maryland (8)
Ringo, Henry J., 840 Missouri Bldg. (3)
Riordan, Lawrence M., Lister Bldg. (8)
Ritchie, Frances R., 5233 Waterman (8)
Ritter, Hubert A., 16 Hampton Village Plaza (9)
Robertson, LeRoy L., 340 Beaumont Bldg. (8)
Robins, Eli, 600 S. Kingshighway (10)
Roche, Maurice B., 322 Beaumont Medical Bldg. (8)
Roe, Allen N., Rt. 1, Box 13, Wentzville
Rohlfing, Walter H., 4724 Gravois (16)
Romendick, Samuel S., Box 45, WBAH, El Paso, Texas
Rose, Dalton K., 316 Beaumont Bldg. (8)
Rosen, Charles S., 412 Humboldt Bldg. (3)
Rosenbaum, Harry D., 840 Beaumont Bldg. (8)
Rosenberg, Meyer B., 3501 Bryn Mawr Dr., Bakersfield, Calif.
Rosenfeld, Henry, 3903 Olive (8)
Roth, John J., 1020 Missouri Theatre Bldg. (3)
Rothman, David, 4652 Maryland (8)
Rothweiler, Robert, 4161 Lindell (8)
Rotter, Julius C., 2603 Cherokee (18)
Roulhac, George E., 530 Beaumont Medical Bldg. (8)
Roy, Joseph A., 912 Beaumont Medical Bldg. (8)
Royce, Robert K., 411 Beaumont Medical Bldg. (8)
Royston, Grandison D., Route 3, Hope, Ark.
Ruddell, George W., 1259 N. Kingshighway (13)
Rudi, Herbert J., 3532 Gravois (18)
Rumer, Donald Glenn, 915 N. Grand (6)
Rund, Emmet H., 5417 S. Grand (11)
Rush, Joseph C., 1515 Lafayette (4)
Ryan, Linus M., 2306 Klemm (10)
Ryan, Robert E., 540 Beaumont Medical Bldg. (8)
Sachar, Leo A., 457 N. Kingshighway (8)
Sachs, Ernest, Yale University School of Medicine, New Haven, Conn.
St. John, Dewey, 833 Metropolitan Bldg. (3)
St. John, Thomas C., Metropolitan Bldg. (3)
Sale, Llewellyn, 100 N. Euclid (8)
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Salmon, William D., Jr., 4960 Audubon (10)
Sammons, Harry C., 414 W. Washington (22)
Sanders, Robert D., 1502 Cass (6)
Sanders, Theodore E., 100 N. Euclid (8)
Sante, LeRoy, 606 Missouri Theatre Bldg. (3)
Sargent, Frederick K., 6430 Hampton (9)
Sassin, Edmond F., 518 Frisco Bldg. (1)
Sato, George, 5123 Shrewsbury (19)
Satterfield, Val B., 415 Lister Bldg. (8)
Satterwhite, George R., 1515 Lafayette (4)
Sauer, F. J. Dean, 7820 Carondelet (5)
Sauer, W. Nicholas, 218 Beaumont Medical Bldg. (8)
Sausville, Albert J., 8321 N. Broadway (15)
Schaper, Ernest H., 7200 Manchester (17)
Schechter, Samuel E., 7736 Cornell (24)
Scheer, George E., 634 N. Grand (3)
Scheff, Harold, 457 N. Kingshighway (8)
Scherman, Victor E., 830 Beaumont Medical Bldg. (8)
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Schierman, William D., 6354 Pershing (5)
Schlenker, Lawrence, 3515 S. Grand (18)
Schlossstein, Adolph G., 3438 Russell (4)
Schlueter, Newell, W., 634 N. Grand (3)
Schmidt, Edwin H., 9244 Coral Drive (23)
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Schnoebelen, Paul C., 462 N. Taylor (8)
Schrepel, Herbert O., 614 Missouri Theatre Bldg. (3)
Schroeder, Henry A., 640 S. Kingshighway (10)
Schuchat, W. Louis, 3866 Flora Pl. (10)
Schuck, Philip, 1703 S. Grand (4)
Schuster, Joseph M., Jr., 1466 Hickory Lane (4)
Schwartz, Frederick O., 727 Metropolitan Bldg. (3)
Schwartz, Henry G., 600 S. Kingshighway (10)
Schweiss, John F., 295 Tenafly Rd., Tenafly, N. J.
Sciortino, Gaspare, 5501 St. Louis (20)
Sciortino, John S., 801 Beaumont Medical Bldg. (8)
Scopelite, Joseph A., 3718 N. Grand (7)
Scott, Elwin P., 3258 Lafayette (4)
Scott, Wendell G., 35 N. Central (5)
Seabold, John A., 1006 Carleton Bldg. (1)
Seaman, William B., 510 S. Kingshighway (10)
Seddon, John W., 4500 West Pine (8)
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Senturia, Hyman R., 462 N. Taylor (8)
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Sertl, John D., 3739 Gravois (16)
Sevin, Omar R., 45 Briarcliff (24)
Sewing, Arthur H., 2342 St. Louis (6)
Sexton, Daniel L., 920 University Club Bldg. (3)
Sexton, Elmer E., 909 Arcade Bldg. (1)
Shackelford, Horace H., 504 Wall Bldg. (8)
Shade, Virgil E., 4218 Nebraska (11)
Shahan, Philip T., 524 Metropolitan Bldg. (3)
Shahan, William E., 524 Metropolitan Bldg. (3)
Shaner, John F., 912 Beaumont Medical Bldg. (8)
Shapleigh, John B., 7030 Maryland (5)
Sharp, Austin R., 2103 Adelbert Rd., Cleveland, Ohio
Sheets, John S., 2500 S. Kingshighway (10)
Sheets, Martin E., 4329 Manchester (10)
Shen, Jerome T. Y., 4660 Maryland (8)
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Sherman, Alfred I., 630 S. Kingshighway (10)
Sherry, Sol, 216 S. Kingshighway (10)
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Sievers, Edward F., 635 Midland (5)
Signorelli, Andrew J., 2801 N. Taylor (15)
Silvermintz, Saul D., 8555 Bryan (17)
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Simon, Jerome I., 830 Beaumont Bldg. (8)
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1. Fazekas, J.F., et al.: J.A.M.A. **161**:46 (May 5) 1956. 2. Mitchell, E.H.: J.A.M.A. **161**:44 (May 5) 1956.

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Westrup, Arthur W., 204 E. Big Bend Rd., Webster Groves
Westrup, Ellsworth A., 14 N. Taylor Woods, Kirkwood
Whitener, Paul R., 2403 Brown Rd.
Williamson, O. E., 6336 Clayton Rd.
Wissmath, Frank S., 35 N. Central, Clayton
Witt, David B., 8230 Forsyth, Clayton
Wittler, Harry A., 2817 Manderly, Brentwood
Wulff, George J. L., Jr., 6 Graybridge Lane
Wyatt, Lois C., 134 W. Adams, Kirkwood
Yanow, Mitchell, 201 S. Central, Clayton
Yost, Walter B., 118 N. Clay, Hinsdale, Ill.
Young, John S., 1126 St. Louis
Zeitler, Walter A., 2554 Hord Ave., Jennings
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Zuckner, Jack, 4500 Olive

SALINE COUNTY MEDICAL SOCIETY

Aiken, George A., Marshall
Aiken, Richard F., Marshall
Bickford, Wallace M., Miami, Fla.
Haynes, Robert C., Marshall
Haynes, Robert C., Jr., Western Reserve University, Cleveland, Ohio
Johns, G. A., Marshall
Jones, Ralph H., Marshall
Lawless, Charles L., Marshall
Lawrence, John R., Marshall
Lockwood, W. E., Slater
McBurney, C. A., Slater
McCorkle, E. Lee, Marshall
Madison, Waite H., Marshall
Mead, Samuel T., Slater
Nix, Winston K., Marshall
Reid, James A., Marshall
Roberts, Paul A., Sweet Springs
Robinson, Don, U. S. Navy Hospital, San Francisco, Calif.
Roehrs, Marvin E., Marshall
Sharp, William L., 1428 Locust St., St. Louis
Sullivan, B. Hazard, Miami
Veatch, Charles A., U. S. Air Force
Worley, Charles A., Sweet Springs

SCHUYLER COUNTY
(North Central Counties Medical Society)

SCOTLAND COUNTY
(Lewis-Clark-Scotland County Medical Society)

SCOTT COUNTY
(Semo County Medical Society)

SEMO COUNTY MEDICAL SOCIETY
(Stoddard-New Madrid-Mississippi-Scott Counties)

Bruce, Leo A., Sikeston
Buckthorpe, Thelma C., Sikeston
Chandler, Orville B., New Madrid
Cline, Jesse A., Oran
Comeau, Richard, Dexter
Critchlow, William C., Sikeston
Davis, Sam, Dexter
Davis, Wilbur L., Charleston
Dernoncourt, John E., Charleston
Dieckman, William C., Dexter
Dunaway, Howard A., Sikeston
Ellis, Burnett E., Gideon
Ferguson, Wilson J., Sikeston
Finney, William O., Chaffee
Husted, George W., Parma
Hux, William J., Essex
Jones, Edward E., Lilbourn
Killion, John J., 1434 Pacific Beach Dr., San Diego, Calif.
McClure, Thomas C., Sikeston
Marshall, Alfred H., Charleston
Martin, Albert J., East Prairie
Martin, Andrew D., Sikeston
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O'Dell, Timothy T., Oran

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Reeder, Charles C., New Madrid
Roberson, John H., Lilbourn
Rolwing, E. Charles, Charleston
Sample, George A., Chaffee
Sargent, Alden P., Sikeston
Sarno, S. M., Morehouse
Smith, Audra B., Sikeston
Smith, Louis J., New Madrid
Throgmorton, Howard B., Sikeston
Urban, Edgar D., Sikeston
Waddle, Theodore L., Dexter
Weisbrod, Wilfred B., Jewish Hospital, St. Louis
Whitaker, Topsey T. H., East Prairie

SHANNON COUNTY
(Carter-Shannon County Medical Society)

SHELBY COUNTY
(Marion-Ralls-Shelby County Medical Society)

SOUTH CENTRAL COUNTIES MEDICAL SOCIETY
(Howell-Oregon-Texas-Wright-Douglas-Ozark Counties)

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Burns, Thomas J., Houston
Callihan, C. F., West Plains
Connor, Samuel W., Mountain Grove
Cooper, Claude W., Thayer
Denney, Richard W., Mountain Grove
Doan, Deborah, Bakersfield
Fowler, Marvin L., West Plains
Frame, Homer G., Mountain Grove
Gentry, Marvin C., Ava
Hogg, Garrett S., Jr., Cabool
Kelly, John B., 8457 Buckthorn Dr. Berkeley 21
Kramer, Scott G., Norfolk, Va.
Miller, Harold W., Willow Springs
Mott, James R., Hartville
Musser, Richard E., Waynesville
Norman, Robert M., Ava
Perkins, Maxwell B., Willow Springs
Randall, Leslie, Licking
Roberts, Billy J., Richland
Smith, Rollin H., West Plains
Spears, Joe L., Cabool
Walker, Ambrose T., Mammoth Springs, Ark.
Wheeler, J. D., Mountain Grove
Wiles, Jack N., West Plains

STODDARD COUNTY
(Semo County Medical Society)

STONE COUNTY
(Ozarks Medical Society)

SULLIVAN COUNTY
(North Central Counties Medical Society)

TANEY COUNTY
(Ozarks Medical Society)

TEXAS COUNTY
(South Central Counties Medical Society)

VERNON COUNTY
(West Central Missouri Medical Society)

WARREN COUNTY
(Franklin-Gasconade-Warren County Medical Society)

WASHINGTON COUNTY
(Mineral Area County Medical Society)

WAYNE COUNTY
(Butler-Ripley-Wayne County Medical Society)

WEBSTER COUNTY MEDICAL SOCIETY

Beers, Ellsworth G., Seymour
Macdonnell, Carey R., Marshfield
Macdonnell, Thomas M., Marshfield

WEST CENTRAL MISSOURI MEDICAL SOCIETY
(Bates-Cass-Cedar-St. Clair-Vernon Counties)

Allen, Claude J., Rich Hill
Allen, William H., Nevada
Allen, William H., Jr., Hume
Barger, O. B., Harrisonville
Barone, Paul L., Nevada
Beckman, William, Strasburg
Brown, William R., Overland Park, Kan.
Brownsberger, Robert H., Appleton City
Bunch, James R., Nevada
Cooper, John M., Butler
Davis, C. Braxton, Nevada
Doggett, Sylvester, Nevada
Eklund, Alfred W., Pleasant Hill
Ellett, William H., Appleton City
Ellis, Coburn H., Garden City
Giesler, Donald H., Appleton City
Hansen, Arthur L., Butler
Hartwell, Basil O., Drexel
Hatcher, Dock T., Jr., BOQ 661, Rm. 166 NAS, Pensacola, Fla.
Hill, John J., 1080 Medical Service Sqd., Letterman Army Hospital, San Francisco, Calif.
Hopkins, Thomas S., 608 W. 3rd St., Sedalia
Jones, Edward S., Harrisonville
King, Elbert R., R. R. 2, Boise, Idaho
LaHue, L. D., Butler
Long, David S., Harrisonville
Love, Walter S., Nevada
Lusk, Charles A., Jr., Butler
Luter, Carter W., Butler
McCann, Louis P., Nevada
Magee, Robert L., 111½ Spring St., El Dorado Springs
Martin, Forrest L., Nevada
Moody, Jackson C., Harrisonville
Morris, Robert C., Nevada
Morrison, G. B., Nevada
Pascoe, James J., Moore Bldg., Nevada
Pearse, Roy W., Jr., Moore Bldg., Nevada
Pickens, E. Allen, Nevada
Richter, William B., Stockton
Robbins, Martin V., Peculiar
Robinson, Edward E., Adrian
Ronald, Douglas C., Butler
Scott, James U., Harrisonville
Shrout, Cecil B., Bunceton
Sipes, Frank M., 6518 Longwood Rd., Little Rock, Ark.
Slickman, R. A., Appleton City
Todd, Thomas B., Nevada
Tracy, Herbert A., Belton
Triplett, Jacob S., Harrisonville
Uyeno, Frank S., Nevada
Wray, Rolla B., Nevada
Wright, Leslie H., Nevada

WORTH COUNTY
(Nodaway-Atchison-Gentry-Worth County Medical Society)

WRIGHT COUNTY
(South Central Counties Medical Society)

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Missouri Medical Meetings

Annual Meeting Missouri Academy of General Practice, Governor Hotel, Jefferson City, Oct. 24, 25, 1956.
Missouri State Medical Association Annual Session, Kansas City, March 31, April 1, 2, 3, 1957.
St. Louis Pediatric Society—second Thursday of each month, September through May at Medart's Restaurant, 8:00 p.m.

Component Society Meeting Dates

Audrain County Medical Society—second Thursday of each month.
Barton-Dade County Medical Society—third Wednesday of each month.
Benton County Medical Society—meets only on call.
Boone County Medical Society—first Tuesday of each month.
Buchanan County Medical Socitey—first Wednesday of each month.
Butler-Ripley-Wayne County Medical Society—first Wednesday of each month.
Callaway County Medical Society—third Thursday of each month.
Cape Girardeau County Medical Society—first Monday of each month.
Chariton-Macon-Monroe-Randolph County Medical Society—second Thursday of each month September through May.
Clay County Medical Society—last Tuesday of each month.
Clinton County Medical Society—meets only on call.
Cole County Medical Society—third Tuesday of each month.
Cooper County Medical Society—first Monday after the 15th of each month.
Dallas-Hickory-Polk County Medical Society—first Wednesday of each month.
Dunklin County Medical Society—third Tuesday of each month.
Franklin-Gasconade-Warren County Medical Society—last Tuesday of each month at the St. Francis Hospital, Washington, at 12:30 p.m.
Grand River Medical Society (Caldwell-Carroll-Livingston, Grundy-Daviess, Harrison, Linn, Mercer, DeKalb)—second Thursday of each month.
Greene County Medical Society—fourth Friday of each month.
Henry County Medical Society—meets only on call.
Holt County Medical Society—meets only on call.
Howard County Medical Society—meets only on call.
Jackson County Medical Society—fourth Tuesday of each month except June, July and August, at auditorium of General Hospital No. 1.
Jasper County Medical Society—second Tuesday of each month, September through May.
Jefferson County Medical Society—meets only on call.
Johnson County Medical Society—meets only on call.
Laclede County Medical Society—second Monday of each month at 6:00 p.m., at the Louise Wallace Hospital, Lebanon.
Lafayette-Ray County Medical Society—second Tuesday of each month at 7:30 p.m., at the Victory Cafe, Lexington.
Lewis-Clark Scotland County Medical Society—meets only on call.
Lincoln-St. Charles County Medical Society—third Thursday of each month.
Marion-Ralls-Shelby County Medical Society—fourth Tuesday of each month. 7:30 p.m.
Miller County Medical Society—meets only on call.
Mineral Area County Medical Society (St. Francois-Iron-Madison-Washington-Reynolds-Ste. Genevieve)—fourth Thursday of each month.
Moniteau County Medical Society—second Thursday of each month.
Newton County Medical Society—meets only on call.
Nodaway-Atchison-Gentry-Worth County Medical Society—first Monday in February, April, October and December.
North Central Counties Medical Society (Adair-Schuyler-Knox-Sullivan-Putnam)—meets only on call.
Ozarks Medical Society (Barry-Lawrence-Stone-Christian-Taney)—second Tuesday of each month September through June.
Pemiscot County Medical Society—third Thursday of each month.
Perry County Medical Society—second Thursday of each month.
Pettis County Medical Society—third Monday each month September through May.
Phelps-Crawford-Dent-Pulaski-Maries County Medical Society—fourth Thursday of each month.
Pike County Medical Society—third Tuesday of each month.
Platte County Medical Society—meets only on call.
St. Louis County Medical Society—second and fourth Wednesday of each month.
St. Louis Medical Society—first, third and fifth Tuesday of each month October through May.
Semo County Medical Society (Stoddard, New Madrid, Mississippi, Scott)—third Wednesday of each month September through May.
South Central Counties Medical Society (Howell-Oregon-Texas-Wright-Douglas-Ozark)—fourth Wednesday of each month.
Vernon-Cedar County Medical Society—meets only on call.
Webster County Medical Society—meets only on call.
West Central Missouri Society—second Thursday of each month.

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Curiosa et Trivia

William B. McCunniff, M.D.

A ten year survey in Massachusetts revealed almost four thousand deaths proven to be due to alcohol. This represented about one half of all deaths from poisoning.

It may or may not prove anything, but two-mile high Leadville, Colorado, has the highest rate of premature births in the United States.

Official records in England and Wales for 1953 show an average of two suicides or attempted suicides per week in children from 8 to 17 years of age. Of the successful suicidal attempts, 77 per cent were boys; but 64 per cent of the attempted suicides were girls. Hanging or self strangulation was used by about half of the boys, but none of the girls chose this method.

Although catheters date back to at least the time of Hippocrates (who considered it a mark of unskillfulness if the physician did not succeed in entering the bladder), it was not until 1720 that Parolino described a flexible instrument.

It seemed like the current barrage of mail-detailing was a product of the present day until it was noted that in 1899 a university professor of medicine ". . . received by mail 424 circulars relative to medicines and their uses. Of these there were only 54 . . . classed as 'respectable' . . . the remaining 370 pieces . . . 'ordinary' and 'disgusting.' "

Professional tennis player Pancho Gonzales has a service which has been measured at 112 miles per hour.

Capsule Clinics

I. A. Wien, M.D.

- Circulating blood contains within and about itself all that is needed both to prevent or delay coagulation and to promote or accelerate it. Tocantins, L. M.: Surg. Clin. North America **29** (December) 1949.

- In this era of specialization, at the neglect of allied fields, it is beyond controversy that one is not qualified to repair injured extremities unless he has mastered the surgery of nerves. Bunnell, S.: Surgery of the Hand, J. B. Lippincott Co., Philadelphia, 1944.

- Judging from our experience previously with thiouracil we can expect that about 50 per cent of the adequately treated patients will remain in remission. Crile, G., Jr.: Practical Aspects of Thyroid Disease, W. B. Saunders Co., Philadelphia, 1950.

- Histoplasmosis has been reported mostly from the United States where it seems to be most frequent, occurring chiefly in Mississippi, Missouri, and Ohio river valleys. Editorial, New England J. Med. **254** (January 26) 1956.

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A single COLICELL tablet is more effective for a longer period and is carefully coated to prevent gastric disturbance. In bottles of 100 and 1000 tablets.

Each Tite-Coat Red Tablet Contains:

Extracts of Whole Bile (Equal parts Ox and Hog)	210.0 mg.
Ketocholanic Acids (Oxidized or keto form of normally occurring bile acids containing approximately 93% dehydrocholic acid)	90.0 mg.
Methyl Cellulose	130.0 mg.
Homatropine Methylbromide	2.5 mg.

SAMPLES AND LITERATURE ON REQUEST

SINCE 1843

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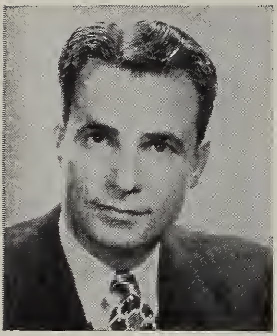
Entered as second-class matter, February 18, 1925, at the post office at Fulton, Missouri, under the Act of March 3, 1879. Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917. Publication Office: 1201-5 Bluff Street, Fulton, Missouri. Editorial Office: 634 N. Grand Ave., St. Louis 3, Mo. Subscription Price: $3.00 Per Year. Printed by The Ovid Bell Press, Inc., Fulton, Missouri.

Missouri Medicine in Review

Leo H. Pollock, M.D.

FORTY YEARS AGO



The Sixty-seventh Annual Session of the American Medical Association, held at Detroit, June 12-16, fulfilled every expectation of the members in its social, business and scientific aspects. The incoming President, Rupert Blue, Surgeon General of the U. S. Public Health Service, was installed. The election of president at first promised to be a contest between four aspirants, but on the day of election it had narrowed down to two names, Dr. Jabez N. Jackson, Kansas City, and Dr. Charles H. Mayo, Rochester, Dr. Mayo being elected. The registration of Fellows from Missouri totaled 139.

Dr. J. Frank Harrison was elected Mayor of Mexico.

Dr. E. H. Welcome has been appointed city physician of Joplin.

Dr. E. A. Doolin, President of the Vernon County Medical Society, was reelected Mayor of Nevada.

Dr. F. M. Vessells, Perryville, was a delegate to the Democratic National Convention at St. Louis, June 14.

Dr. H. P. Yeater, President of the DeKalb County Medical Society and Mayor of Mayesville, was married on April 24 to Mrs. Essie Welsh, St. Joseph.

The State Board of Health held a meeting for the examination of applicants for license to practice, June 12 to 14, at the Washington University Medical School, St. Louis.

During the auto races to the top of Pike's Peak at Colorado Springs, Colo., Aug. 11, 1916, the El Paso County Medical Society has arranged for a dollar dinner and other entertainment, at which time Dr. Burton W. Sippy, Chicago, will deliver an address on "The Treatment of Peptic Ulcer, Past and Present."

The Journal contained 574 pages of reading matter in Volume 12 (January to December, 1915), an average of 48 pages of pure reading matter in each issue. There were 103 original articles and 80 editorials in each issue, and 133 reports of society proceedings, as well as miscellaneous matter. It had a net gain of $1,288.37.

The Gasconade-Maries-Osage County Medical Society met in the Osage County Courthouse in Linn, Thursday, June 22, 1916, at 2 p.m. Dr. Carroll Smith read a paper and presented skiagrams on the open method of treating fractures. He explained the difference in steel bone-plates and bone-grafts and recommended auto bone-grafts as against bone-grafts from other persons or animals.

The Polk County Medical Society met at the Viles Hotel, Bolivar, at 11 a.m., June 13. The vice president, Dr. Stufflebam, called the meeting to order. Dr. C. H. Brown reported an interesting case of trichinosis of trichiniasis due to eating hamburger sausage. The diagnosis was confirmed by microscopic examination.

TWENTY-FIVE YEARS AGO

For President-elect during 1931-1932 and President during 1932-1933, the Missouri State Medical Association at the Joplin session chose a member from the Ozark region, Dr. Joseph W. Love of the region's Queen City, the first member from Springfield elevated to the office of President of the Association since the late Dr. J. E. Tefft was president at the St. Louis meeting in 1872.

With forecasts pointing to an attendance of 5,000 at the eighty-second annual session of the American Medical Association held in Philadelphia June 8 to 12 the total registration quite unexpectedly rose to 7,006. Ninety Fellows registered from Missouri, this being about fifty less than usually attend the meetings. President William Gerry Morgan's address to the House of Delegates disclosed an astonishing familiarity not only with the problems that arise during the annual session but also with the stupendous amount of labor performed by the officers and personnel at the headquarters in Chicago. Dr. Edward Starr Judd in the President-elect's address said the meaning of medical ethics should be made known to all students during their medical school days. An important proposition was introduced by the delegates from Michigan pertaining to a demand by Michigan physicians to receive a fee of not less than $2 from insurance companies for filling in claim proofs for health and accident insurance companies.

The American Medical Directory for 1931, the twelfth edition, published by the American Medical Association, lists 172,383 names including all licensed medical practitioners in the United States, its dependencies, Canada and Newfoundland, and American licensees practicing or studying in foreign countries. Since the eleventh edition, 11,936 names have been added and 6,709 names have been withdrawn because of death.

Dr. William H. Mook, St. Louis, assistant professor of clinical dermatology, Washington University School of Medicine, was elected president of the American Dermatological Association at the meeting of the society held in Toronto June 15 to 17.

The memory of Dr. William Beaumont, pioneer physiologist of the United States who practiced

(Continued on page 654)

Dysmenorrhea:

"one third of all young women in America are afflicted with it."[1]

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1. M. Times 76:416.
*T.M. Reg. U.S. Pat. Off.

Missouri Academy of General Practice

J. H. Trolinger, M.D.

American Academy of General Practice

On June 11, 1956, the University of Missouri School of Medicine launched its General Practice Preceptorship program for the current year, 1956-1957. In so doing, our state University has joined some twenty-one other medical schools across the nation in providing a preceptorship in general practice for its senior students. Thus far, seven of the twenty-one fourth year students at the University of Missouri have elected to take a preceptorship in general practice. The first three assignments are as follows: Mr. Jefferson Davis, Neosho, to Dr. Kenneth Glover, Mount Vernon; Mr. Thomas Fischer, Canton, to Dr. J. H. Trolinger, Jackson, and Mr. Howard Adams, Chillicothe, to Dr. P. V. Siegel, Smithton. This first assignment of preceptorships will extend from June 11 through July 24, 1956.

It is planned that this preceptorship program follow quite closely the program started in 1926 at the University of Wisconsin. The results of these programs, now in progress on other campuses, are being hailed enthusiastically by preceptors, by preceptees and medical school faculties alike. All Missouri physicians will undoubtedly follow the progress and results of this new program with keen interest, and most particularly the Missouri GPs will be keenly interested in cooperating in every possible way to make the program the success it has been on other campuses. The Missouri Academy of General Practice congratulates the faculty and administrators of the University of Missouri Medical School in taking this far reaching step toward achieving one of their primary goals; namely, to provide more good general practitioners for rural Missouri. Those Missouri GPs selected to become preceptors automatically become members of the faculty of the University of Missouri School of Medicine and with it assume a rather imposing (if not frightening) responsibility; however, serving in such a capacity will offer many compensations to the busy practitioner in finding that he can contribute materially to medical education and take an active part in the medical school's teaching program. Most physicians have only the vaguest conception of what a sound preceptorship program is comprised, and "Preceptorship in General Practice" is a difficult thing to define, being necessarily such a personal and individual function. Several months ago in the *Journal of the Iowa Academy of General Practice,* an editorial outlined quite succinctly most of the features and objectives of a good preceptorship program. Perhaps we could do no better than to quote from it:

"The preceptorship is primarily a training period for the student. This does not mean so much that the young man or woman should have a galaxy of baffling cases shown him as that he should learn the general run of the cases which a general practitioner sees. He will be more interested in those because he has less chance to see them (in medical school). This adds to his confidence. No general practitioner can go long without any interesting mixture of difficult diagnostic and therapeutic problems. These give the student an opportunity to see how the practicing doctor approaches the case as a humanitarian in dealing with the psychology peculiar to all illness. This stimulates conviction as to the reality of this phase of medical practice. These factors, together with demonstration of how an office staff functions, how one handles "what some doctors unthinkingly refer to as the 'plague' of phone calls (but which are the very essense of medical practice), how case records are kpt, how charges are determined and collections made, and last, but not least, how the doctor lives outside his professional hours, provide the young doctor a valuable look into his future.

"The returns to the doctor are legion. Association with the youth and vigor of a medical student is indeed a rewarding experience. The opportunity to have a share in the training of tomorrow's physicians should be inducement enough to make every sincere doctor clamor for a chance for such service. The financial outlay is a minor item."

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Women's Auxiliary

Mrs. Charles *(Susan)* Shepherd, *President*

In May 1922, thirty-four years ago, twenty-six wives of doctors helped set up a temporary organization which marked the beginning of the Woman's Auxiliary to the American Medical Association. On June 10-15, 1956, representatives of a membership of 75,000 distributed among fifty-one state auxiliaries (including those of the District of Columbia, Alaska and Hawaii) and more than 1,100 county organizations came again to Chicago. Although the extent of Auxiliary activities has changed vastly in its first generation of existence, its objectives have remained essentially what they were at the beginning.

The national organization has the role of advising state and county auxiliaries and coordinating their activities. Reported activities during the last twelve months indicated that objectives of the auxiliary have become realities.

"Health Is Our Greatest Heritage," is to be the new slogan for the year's theme, given by the newly installed president, Mrs. Robert Flanders, Manchester, New Hampshire. Others elected to the A.M.A. Auxiliary board are as follows: President-elect, Mrs. Paul C. Craig, Pennsylvania; 1st Vice President, Mrs. Arthur Underwood, Vancouver, Washington; 2nd Vice President, Mrs. Clark Bailey, Kentucky; 3rd Vice President, Mrs. Frank Gastineau, Indiana; 4th Vice President,. Mrs. Edgar E. Quayle, Washington, D.C.; 5th Vice President, Mrs. Carl Burkland, California; Treasurer, Mrs. M. A. Gold, North Dakota; Secretary, Mrs. Richard Stover, Florida. Directors for two years: Mrs. George Garrison, Oklahoma, Mrs. C. R. Pearson, Wisconsin, and Mrs. Ed. G. Thuss, Alabama.

The chairman of the American Medical Education Foundation of A.M.A. Dr. George Lull, was presented a check in the amount of $106,222.26. The final results and figures of this was not tabulated as money was continuing to come in even during the convention. Missouri contributed $980.50. It is our goal this coming year to subscribe a minimum of $1.00 per member. This project will continue to be high on the list of activities we are asked to include again this year, and probably for years to come.

The states have also raised $100,000.00 during the last year for nurse scholarships—a total to date of approximately $500,000. This coming year we are asked to recruit not only nurses but personnel for the many other fields of health services. The need is acute for trained personnel.

New on the program for the coming year will be Safety Education with particular emphasis on traffic safety. We are urged to foster driver education concerning road signs and to promote the use of safety belts, door locks and other protective equipment in private automobiles. There is an important film on car safety, prepared by the Auto Crash Injury Research Program at Cornell University Medical College and is available for use in community programs.

Next year's program will, like this year, include such continuing projects as local improvement in mental health facilities; work in Civil Defense, particularily the teaching of home nursing; promotion of *Today's Health;* health legislation, plus a well rounded program geared to the needs of each individual community to promote good public relations for the whole medical profession.

We have been reminded to stress the importance of "A family doctor for every doctor's family," and my own plea to this is directed to our Auxiliary and all doctor's wives, whether members or not, this year to have a complete physical check-up. A personal survey has convinced me that most doctor's wives are somewhat like the "shoemakers' children"—the last to get any attention. Will you encourage your wife to make this her personal responsibility, please?

Missouri was allowed sixteen delegates to the Auxiliary convention and fourteen were present to answer roll call and stayed right through most of the meetings from early Monday morning until noon Thursday. I am sure I speak for the other thirteen when I say that we came away enriched with knowledge and enthusiastic to get started on the program recommended for our participation in helping the medical profession bring better health to our communities and as the "distaff" side of medicine, to bring better public relations to the profession by our active leadership and participation in community health matters.

At the present time plans are being formulated to hold a real workshop of instruction and we hope, inspiration, for all the board members on the county level, at Columbia, September 18-19 at the Daniel Boone hotel. There will be panel discussions with resource authorities on every phase of our activities during Tuesday afternoon followed by a dinner and a "fun" program for the evening with the following day devoted to progress reports from state board members. It would be most encouraging and helpful if you, our doctors, would encourage your wives to attend this meeting—in fact you too would be welcome to any and all of our meetings.

I was proud to have represented our wonderful state, as president of our auxiliary, at the A.M.A.

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Progress of Prepayment Plans

Kansas City Blue Cross-Blue Shield

Two changes in Blue Shield benefits became effective July 1 in the thirty western Missouri and two eastern Kansas counties served by the Kansas City Plan. As of that date, Kansas City Blue Shield eliminated the three day deductible on payments to doctors for calls on members in the hospital.

Also, the Plan began allowing 50 per cent of the hospital's established charges for electrocardiogram, basal metabolism and laboratory services, in excess of the $7.50 allowance by Blue Cross for routine laboratory services.

The Blue Shield maximum has been $20.00 per admission for these services so the change will be of considerable benefit to the more serious medical and surgical cases.

There will be no increase in membership dues as a result of the changes, F. K. Helsby, executive director, said.

Elimination of the three day deductible—under which payments were made only if the patient required four or more days of care—is accompanied by a slight reduction in the total allowance possible for the full seventy day stays.

It is estimated that the new Home Office building for the Kansas City Plans will result in a saving of about $5,000 a month for the membership over rental cost for space sufficient to meet the office needs. So investment of a part of the Plan's reserve funds to erect the three story and basement building at Thirty-seventh Street and Broadway means a considerable increase in return.

Before it was determined to invest in the building—in an area where property values have gone up considerably since the site was purchased—return from investment in United States bonds was fractionally under 2 per cent. Return, by way of saving about $5,000 a month during the next twenty years will be double that interest rate.

The Plans moved into the building early in May.

A Blue Cross-Blue Shield membership card is mighty important when its holder needs hospital and surgical-medical care.

It also can be helpful in getting a lost wallet back to its owner. Recently a Kansas Citian found a wallet. The only clue to the owner was a Blue Cross-Blue Shield card, but it had no address. The finder called Blue Cross-Blue Shield. His name and phone number were taken by an employee. Then the owner of the lost wallet was found through the Plan's records. He was advised how to get back his wallet.

Missouri Medicine in Review

(Continued from page 646)

in St. Louis from 1835 until his death in 1853, is again being honored, the State Medical Society of Wisconsin planning to erect a tablet in his honor.

Dr. Florian Harms, Moberly, junior house physician at the Wabash Hospital, has resigned to enter private practice in Salisbury. Dr. Harms will be succeeded at the hospital by Dr. Glen I. Allen, Staunton, Illinois.

Dr. William Gerry Morgan, Washington, D. C., retiring president of the American Medical Association accepted an appointment as a member of the Board of Regents of Georgetown University June 24.

The new Menorah Hospital, Fiftieth and Troost, Kansas City, will be ready for occupancy about August 1. The institution was erected by the Jewish Memorial Hospital Association but will be nonsectarian. It was constructed at a cost of $1,400,000 and will be well equipped throughout. Dr. Alvin Lorie was elected president of the staff and other officers are: vice president, Dr. Abraham Sophian; treasurer, Dr. Elmer Twyman; secretary, Dr. Albert Lemoine.

Dr. Lawrence T. Post, St. Louis, became editor of the *American Journal of Ophthalmology* with the July issue. He succeeds Dr. William H. Crisp, Denver.

TEN YEARS AGO

Dr. Barnard C. Trowbridge, Kansas City, has been appointed Chief of the Department of Otolaryngology, AAF School of Aviation Medicine, Randolph Field, Tex.

Dr. Wendell Scott, St. Louis, has been appointed a member of the Board of Consultants to the Surgeon General of the United States Navy to represent the specialty of radiology.

Dr. William J. Stewart, Columbia, conducted the diagnostic clinic for crippled children, sponsored by Missouri State Medical Association, at Willow Springs public school on May 18.

Dr. George H. Klinkerfuss, St. Louis, was elected president of the Audubon Society of Missouri.

Elmer P. Nester, Associate Director of Group Hospital Service for the past six years, has been appointed Executive Director of the Blue Cross hospital service plan succeeding Ray F. McCarthy who will continue his association with the hospital plan in a consulting capacity.

Mrs. A. L. Walter, Sedalia, was installed as president of the woman's auxiliary to the Pettis County Medical Society on May 3.

(Continued on page 730)

Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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Vol. 53 August, 1956 Number 8

Congenital Anomalies of the Hip In Young Infants

The Diagnosis and Treatment

H. R. McCARROLL, M.D., *St. Louis*

Congenital anomalies of the hip are not infrequently encountered in patients in early childhood and can be identified at the time of birth if the positive physical findings are understood and searched for. The most common of these are the dysplastic hip, which consists of an inadequate acetabulum and subsequent upward displacement of the head of the femur, and a true congenital dislocation. Other types of developmental defects also may be encountered such as absence of the head and neck of the femur, congenital absence of most of the femur and at time even absence or major maldevelopment of the corresponding innominate bone. These, however, produce gross deformities and abnormalities in the extremity and in the region of the hip and their presence is usually obvious. The exact classification of the abnormality, however, is dependent on the x-ray findings. The two common congenital anomalities, the dysplastic hip and congenital dislocation of the hip, are not as obvious in the newborn infant and the presence of either can only be suspected by careful physical examination. The presence of such an abnormality, in years past, was seldom detected prior to the age of standing and walking. In recent years however, the diagnosis has been made with increasing frequency during early infancy. This has altered somewhat the type of therapy used since this varies a great deal with the age of the individual.

Congenital dysplasia of the hip, often classified as simple upper subluxation in the older age groups, results from maldevelopment of the acetabulum with a sloping and inadequate superior roof. These infants often show little or no gross clinical abnormality or deformity. The most important physical sign in this type of involvement is limitation of hip abduction when the hip and knee are flexed to 90°. In the normal child, the hip and knee can be flexed to 90° each and in this position the hip can be moved into abduction essentially 90° and often approximated to the examining table without difficulty. This excursion in abduction is markedly limited in the dysplastic hip and in a unilateral type of involvement, there is marked asymmetry between the two sides. In unilateral involvement, there may also be a slight degree of shortening in the extremity but this depends on whether or not the femoral head has displaced superiorly in the inadequate acetabulum. There may also be an extra skin crease in the thigh of the involved side but this, too, is present at times in normal individuals and cannot be considered pathognomonic of the problem. There is no demonstrable instability in these hips since the femoral head is not actually dislocated from the acetabulum. X-ray examination is of great importance and should be conducted in the presence of any of these abnormal physical signs. The film will usually show an inadequate acetabulum in which the roof is sloping in character and the space between the acetabulum and the upper portion of the femur is increased in width. In the quite young infant ossification in the capital epiphysis has not appeared and this is of no assistance in the diagnosis. In a child a few months of age, however, with unilateral involvement, the capital epiphysis of the involved side is usually smaller than that of the normal hip. The physical signs suggestive of congenital dysplasia of the hip, therefore, may be listed as follows:

1. Limitation of abduction.

From the Department of Surgery, Washington University School of Medicine.

2. Possible mild shortening of the involved extremity.

3. Extra skin crease in the thigh.

4. Maldevelopment of the acetabulum as shown by x-ray.

The dysplastic hip usually can be treated successfully by simply maintaining a position of wide abduction of the hips for several months. This may be accomplished by the use of an abduction splint, such as devised by Frejka and by Ilfeld, a pillow splint, long leg plasters and cross bar, or by means of a cross bar connecting the two shoes. The use of plaster casts has proven satisfactory and has the advantage of maintaining constant position at all times. It also has the advantage of permitting one to maintain the position of internal rotation for these extremities during the early phases of treatment. This will often seat the upper end of the femur in the acetabulum more satisfactorily. The initial plaster of paris casts are applied with the hip held in a position of internal rotation and abduction (fig. 1). The two are connected at the feet by means of a plaster cross bar. These casts are changed after two months at which time the internal rotation is corrected and the hips are placed in midposition as regards rotation. The position of wide abduction is maintained for two additional months at which time the casts are again changed and the position of abduction is diminished. In this way immobilization is continued for approximately six months and the time at which the plaster casts are discontinued is determined by the x-ray appearances of the hip. The capital epiphysis will have appeared at this time and its exact relationship to the acetabulum can be established. The femoral head should be well seated in the acetabulum and the acetabular roof should be well developed before the abduction is discontinued. After the casts are removed it is advisable to use a night splint for several additional months which will maintain the position of abduction during sleeping hours. This can easily be accomplished by the use of a light duralumin bar bolted to the soles of the shoes as shown in figure 1D. This protective measure is often continued until the age of 1 year or until the end of one year from the time treatment was instituted.

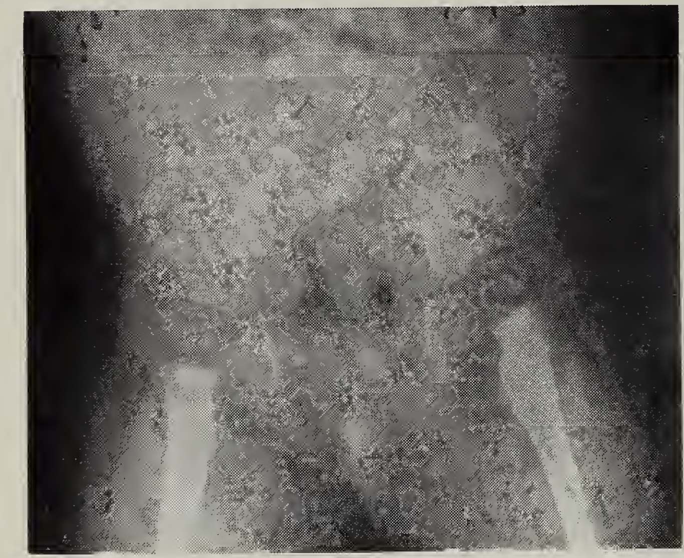

Fig. 1A. Infant, 6 months of age, with clinical and x-ray findings of congenital dysplasia of the right hip.

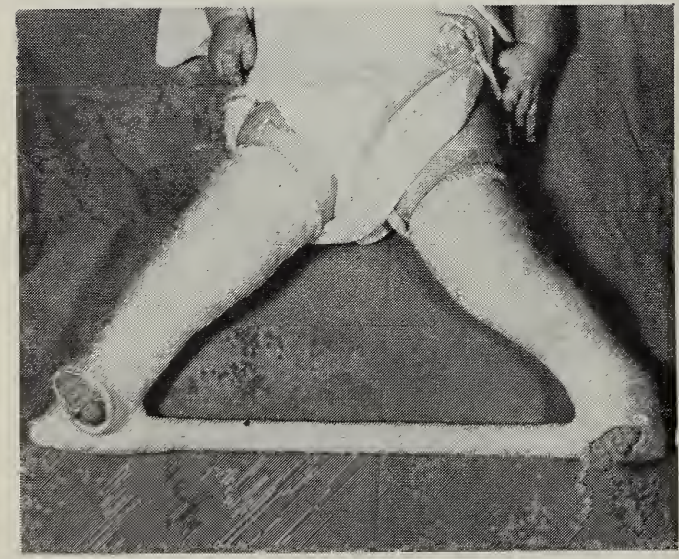

Fig. 1B. Immobilization by means of bilateral long leg plaster casts and cross bar. Note the position of abduction and moderate internal rotation.

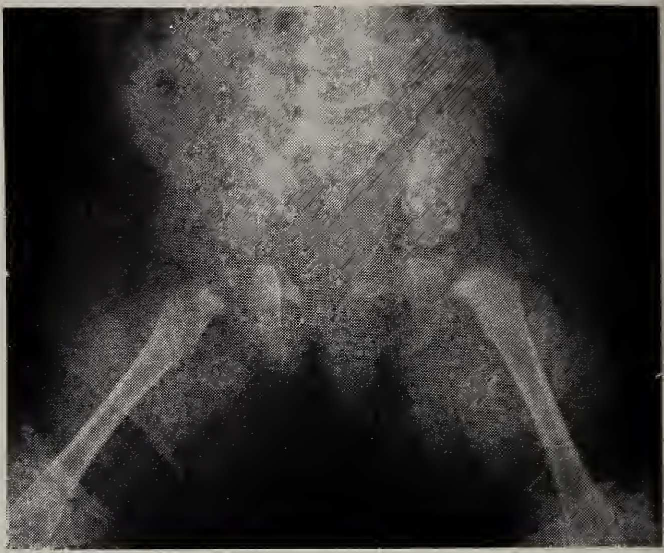

Fig. 1C. The appearance of the hip after immobilization of four weeks. The femoral head is now well seated in the acetabulum and its center of ossification has improved in appearance.

Many hips of this type will correct themselves spontaneously and develop perfectly normal hips with no treatment whatever. It is also true, however, that many hips of this type may progress to a complete dislocation or they may persist and appear as an upward subluxation as seen in the older age groups. Since the future course of any such hip cannot be accurately predicted and since the treatment required is of such conservative

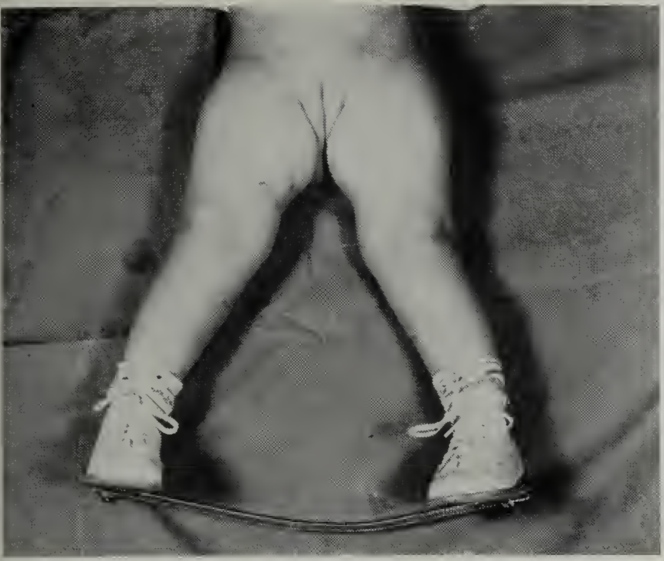

Fig. 1D. Night splint of duraluminum, bolted to the shoes, which is used after complete immobilization has been discontinued in four to six months.

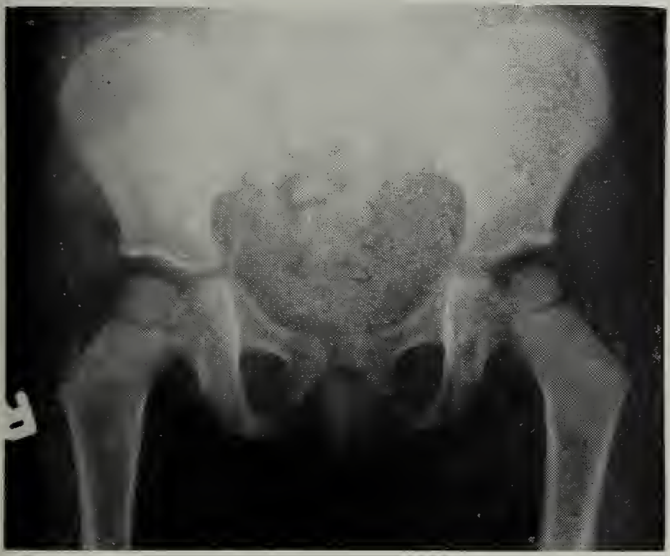

Fig. 1E. After two years, the hips are symetrical in appearance. (Figure 1, reproduced from the Bulletin of the Hospital for Joint Diseases **15**:124, 1954.)

nature, it would seem that treatment is justified in each hip of this classification.

The second type of problem encountered in the infant group is represented by complete dislocation of the hip. This is a much more serious problem, the physical signs are usually more marked. and the clinical management is more complicated. In this instance the upper portion of the femur is not only displaced laterally but is displaced superiorly and the projecting portion of the femoral neck will lie above the superior rim of the acetabulum. The same physical signs present in the dysplastic hip are also present in the hip with congenital dislocation. An important additional physical finding in this type of problem is the demonstration of actual instability in the hip joint. Such a finding is not present in the dysplastic hip and this finding represents the most important single diagnostic point in differentiating the two types of involvement encountered in the infant patient. Instability of this type is best demonstrated by flexing the hip and knee to 90° each and with one hand telescope the femoral head along the side of the pelvis with a push and pull movement while the pelvis is stabilized with the opposite hand. If the involvement is unilateral in type, shortening may also be demonstrated. The clinical signs present in congential dislocation of the hip, therefore, may be listed as follows:

1. Instability of the hip as demonstrated by a telescoping movement.
2. Limitation of abduction.
3. Extra skin crease in the thigh.
4. Demonstrable shortening in a unilateral type of involvement.
5. Maldevelopment of the hip and upward displacement of the proximal portion of the femur as seen by x-ray.

When complete dislocation of the hip is present, simple abduction and internal rotation will not as a rule afford satisfactory reduction of the hip. If gentle manual traction will permit the femoral head to slip into the acetabulum, immobilization in the position of stability should follow. It should be emphasized, however, that forceful manipulation should never be used in these hips because of the danger of injury to the fragile cartilaginous capital epiphysis. If a position of extension of the hip with abduction and internal rotation will maintain the position of reduction, the treatment as described for the dysplastic hip will also suffice in this type. In many instances, however, the position of maximum stability in the young infant is one of flexion, abduction and external rotation constituting the so-called "frog position." This is undoubtedly due to the fact that the normal resting position for the hip in the young infant is one of flexion. The use of a plaster of paris hip spica is required for the immobilization of the hip in this position (fig. 2). In such an event, the spica is changed at intervals of two months. In the young infant, however, it is essential that the child be examined at frequent and regular intervals in order to make certain that the circulation of the extremities remains adequate. The infant child grows so rapidly that the leg portion of the spica can at times become too tight and actually interfere with circulation. When this occurs the spica may have to be changed at more frequent intervals. At the time of the initial change, the extreme position of flexion and external rotation is corrected approximately 50 per cent. The position of wide abduction, however, is usually maintained. When the spica is changed the second time, the hip is placed in essentially complete extension and mild internal rotation although the position of abduction is again maintained. At the end of six months, the hip spica may be discontinued and long leg plasters and a cross bar sub-

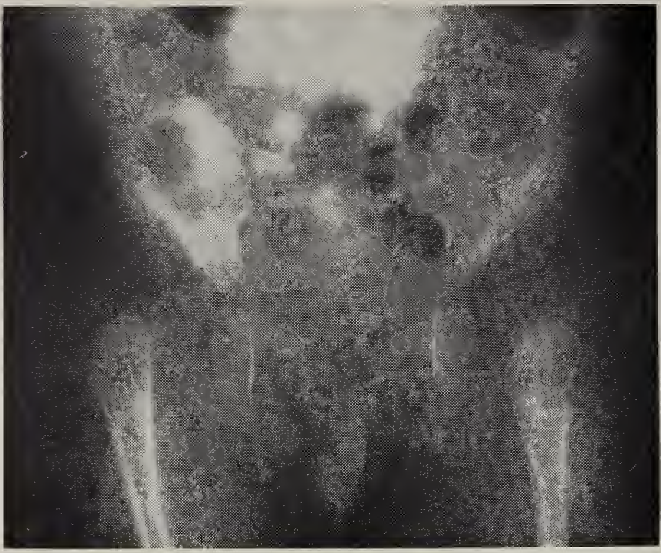

Fig. 2A. Bilateral congenital dislocation of the hip in infant of 6 weeks, detected by the abnormal physical findings.

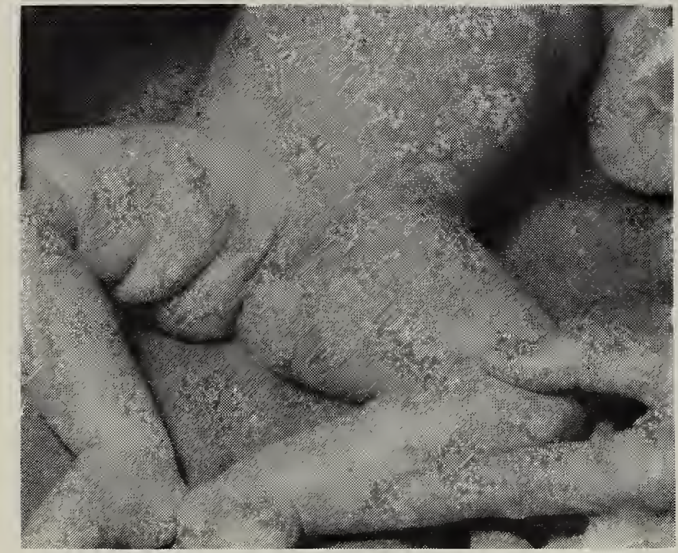

Fig. 2B. Limitation of abduction in each hip more marked in the right. Extra skin crease in the thigh is present only on right side.

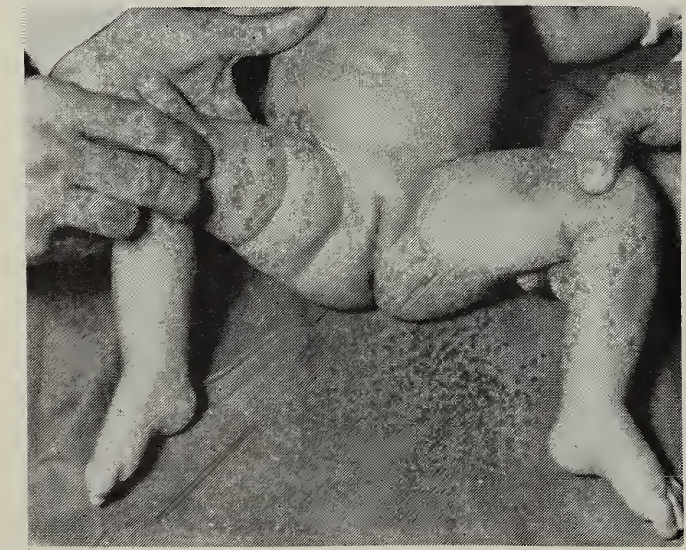

Fig. 2C. The two hips were reduced in the course of the examination by mild traction, abduction and external rotation.

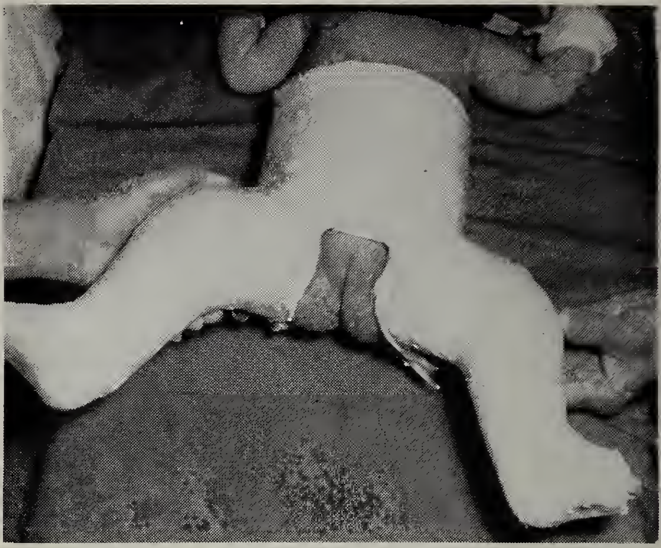

Fig. 2D. A bilateral hip spica was applied in this position. After two months half of the flexion and external rotation were corrected in a change of the plaster.

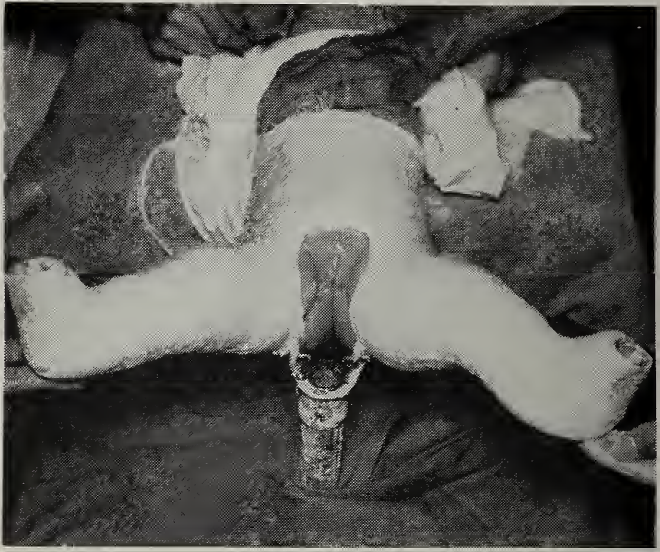

Fig. 2E. Four months after the original reduction, the plaster is again changed and the position of flexion and external rotation is corrected; abduction, however, is still maintained.

stituted with a position of abduction being continued. The position of abduction is maintained in this way but motion of the hip is permitted in sitting. The plaster support is continued for an additional two months after which a night splint is substituted which will maintain the position of abduction during sleep. An aluminum cross bar connecting the soles of the two shoes will usually suffice for a night splint of this type. This may be used for several months and the time required must be decided by the clinical and x-ray findings of the individual case. It is possible that the amount of time required in the overall treatment of this problem may be altered in some instances, but any such change would be dictated by the individual findings. The time stated in this discussion represents the period of immobilization used in the majority of cases.

When treatment of this type for the completely

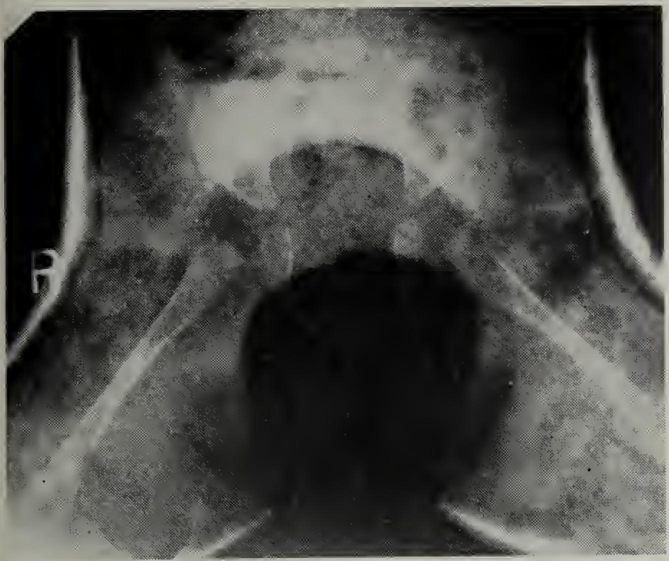

Fig. 2F. Film of the hips in this position showing satisfactory reduction in each.

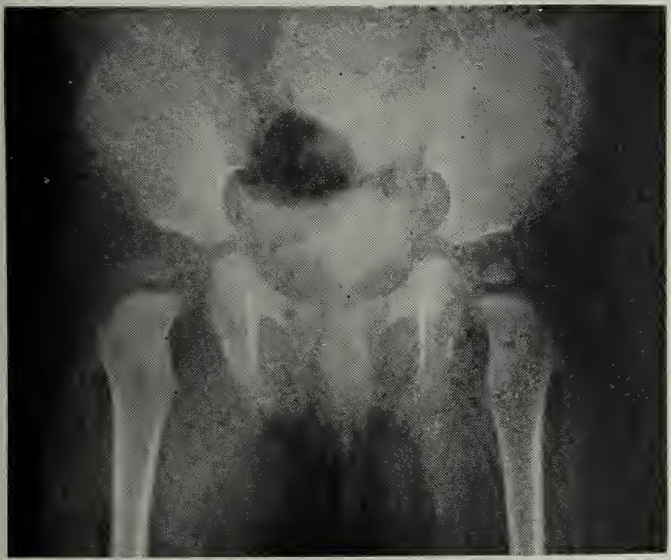

Fig. 2G. Film after one year showing reduction of each hip, although the right is not entirely satisfactory and later required osteotomy for correction of residual torsion. Immobilization was used for eight months, and a night splint is still in use.

dislocated hip is instituted in early infancy, a satisfactory hip often can be obtained without the use of more radical theraputic measures. It should again be stressed, however, that the use of force in attempting to properly position such a hip should never be tolerated. If the femoral head cannot be placed in the acetabulum without forceful manipulation, treatment should be postponed until the child is approximately 1 year of age at which time skeletal traction can be used to permit reduction of the hip without force. Following this simple principle will prevent much of the damage which will otherwise result in the femoral heads from powerful interarticular pressure and secondary avascular necrosis.

SUMMARY

A brief description of the clinical findings present in congenital dysplasia of the hip and congenital dislocation of the hip in early infancy has been presented. A brief résumé has also been given of the type of treatment used in each instance.

These conditions can be diagnosed in early infancy by recognition of their abnormal physical signs. Treatment at that age is relatively simple and conservative in type and, as a rule, affords a satisfactory result.

3720 Washington Ave.

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Diagnosis of the Solitary Lung Lesion

PAUL MADDUX, M.D., *Springfield*

CREDIT FOR the increased interest in the solitary lung lesion is, in no small measure, due to the mass chest x-ray surveys originally planned as a tuberculous case finding method. Successful treatment of any diseased state is enhanced by early recognition of the condition. Thus the majority of the lesions found were asymptomatic. Experience soon demonstrated that a significant percentage of the new found cases were non-tuberculous. In this latter group a large percentage were found to be malignant. The increased incidence of malignant lung disease coupled with the marked advances in thoracic surgery has further heightened the interest in this problem.

A rather natural attitude in dealing with a small asymptomatic lung lesion, accidentally discovered, and undetectable by physical signs, has been to observe the condition for a period of time to check on its progress. This may be especially true in those who have had little contact with the problem. It is well known that malignant chest lesions, as well as the more benign ones, may remain unchanged for long periods of time. If such nodules or tumors are attacked during this silent phase, chances for cure are improved. An appreciable period of observation may rob the patient of this chance. Unless the benign nature of the lesion can be proven, delay may prove disastrous.

DEFINITION

During the last decade, numerous observers have reported on the solitary lung lesion. So many names have been used in describing the condition that the subject is somewhat confused. Included among the various terms are the pulmonary coin lesion,[1] single circumscribed intrathoracic densities,[2] solitary intrapulmonary tumors,[3] silent lung disease,[4] isolated pulmonary nodules[5] and solitary circumscribed pulmonary lesions.[6]

Recently critera have been fairly well defined for the so-called pulmonary coin lesion.[7] Since this is a somewhat limited group of lesions the term has not been used in the title of this paper. All solitary lung lesions will be included in this discussion except those associated with pleural effusion, lymphadenopathy and local metastasis. Certain intrathoracic lesions do not produce solitary lung lesions. Among these may be mentioned teratoids, dermoids, thymomas, intrathoracic thyroids and pleuropericardial cysts.

CLASSIFICATIONS

By far the majority of the lesions under consideration are either malignant or granulomatous in nature; however, since other conditions will be included, some type of classification is necessary for an orderly presentation. The classification herein presented is offered only to expedite the discussion of the various possibilities when confronted with the problem of a solitary lung lesion:

A. Extra-pulmonary:

a. Skin lesions (moles, tumors).

b. Breast nipples.

c. Tumors of the bony thorax (callous at site of rib fracture—osteochondromas and intercostal neurofibromas).

d. Pleural lesions (plaques, effusions, and fibrous mesothelioma).

B. Intra-pulmonary lesions:

a. Vascular (A-V aneurysm, infarction, emboli).

b. Infections (non-granulomatous).

c. Infections (granulomatous) (tuberculosis, histoplasmosis, coccidioidomycosis, actinomycosis).

d. Tumors: (1) benign (bronchogenic cysts, hamartomas); (2) adenoma of the bronchus, (3) malignant (primary, secondary).

A. *Extra-pulmonary Lesions.*—While these should not rightfully be included in the lung lesions, failure to consider them may lead to embarrassing errors. Extra-pulmonary shadows may be superimposed on the lung fields. Certain skin lesions, as moles or tumors and thick breast nipples may present as dense, round shadows. Tumors of the bony thorax, among which may be mentioned osteochondroma, intercostal neurofibromas and callous at the site of a previous rib fracture may, at times, offer some difficulty. Localized empyema, pleural effusion and pleural plaques may rarely be encountered.

B. *Intra-pulmonary Lesions.*—Certain vascular lesions, particularly arteriovenous aneurysms, emboli and infarctions, may occasionally present as solitary lesions. Non-granulomatous localized infections as pneumonia, pneumonitis or early lung abscess are all capable of producing a single lesion. The latter may be of a pyogenic or parasitic variety. Infectious granulomata make up the greatest number of these lesions. Tuberculosis heads the list of all the lesions under discussion, but consideration must also be given to histoplasmosis, coccidioidomycosis and actinomycosis. Rarely will an oil granuloma be encountered. Tumors will constitute a large and most important percentage of the lesions in this group. Bronchogenic cysts and hamartomas comprise most of the benign tumors. Adenoma of the bronchus, while often benign, has malignant potentialities. They are important as 5 to 10 per cent metastasize. Primary malignant tumors comprise the most important group being consid-

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Presented at the 98th Annual Session of the Missouri State Medical Association, April 8-11, 1956, St. Louis.

ered. Even though metastatic nodules are usually multiple they may occasionally present as a solitary lesion.

AGE AND SEX

The age of the patient may be helpful in diagnosis. In practically all studies it has been demonstrated that the greatest number of lung cancers occur between 50 and 60 years of age. While granulomas occur at any age, probably the greatest number will be found in those younger than 50 years. Experience to date shows lung cancer to be much more frequent in males, while granulomas are about equally divided between the two sexes.

SYMPTOMS

Symptoms, when present, are more likely to occur in those harboring primary malignant disease than in those with granulomata or benign lesions. Cough is important and not infrequently present, but is often overlooked. Hemoptysis of any amount requires special consideration as it is not uncommon in lung cancer. A history of wheezing in a non-asthmatic is significant and may indicate early bronchial obstruction from a new growth. Fever is not common but may occasionally be present in bronchial malignancy. Clubbing of the digits is more often present in cases with arteriovenous aneurysm but occasionally is present in those with malignant lung lesions.

In Jewett's[9] study of 150 cases of bronchogenic carcinoma, location of the lesion was found to be chiefly responsible for the variation in symptoms. Lesions in the main stem or lobar bronchi produce cough, infection, hemorrhage and localized wheezing in earlier stages than those lesions more peripherally located. In the segmental bronchi, recurrent respiratory infections as a result of bronchial obstruction and atelectasis, were the earliest symptoms. This type of lesion with low grade recurrent fever may, at times, suggest tuberculosis. In the small bronchioles, located at the periphery of the lung, symptoms are lacking until late and are a result of extension to the larger bronchi. As a rule, when definite symptoms are present in bronchogenic carcinoma, many, if not most, will have spread beyond the limits of successful surgical attack.

In the non-malignant lesions, except for those of infectious etiology, symptoms are most likely to be absent and, if present, are not specific. Localized pneumonia, abscess, emboli or infarction are much more likely to give symptoms characteristic of the condition. Granulomatous lesions, especially the tuberculoma, may exist for varying intervals, even throughout the life of an individual, without producing symptoms.

PHYSICAL FINDINGS

As in the case of symptoms, physical findings are often absent. Careful examination of the extrapulmonary areas will usually rule out any lesion in this location. Larger lesions may give localized lung findings but, as a rule, are non-specific in nature and of little value in a differential diagnosis.

DIAGNOSTIC METHODS

A. Roentgenologic Diagnosis (posterior-anterior, lateral stereoscopic):

a. Fluoroscopic.

b. Laminagraphy.

c. Bronchography.

d. Angiography.

B. Skin Testing (tuberculin, histoplasmin, coccidioidin).

C. Bronchoscopic Examination.

D. Laboratory Examination (sputum, gastric aspiration, Blood counts, serologic studies).

E. Pathologic Examinations:

a. Cytology of sputum and bronchial washings.

b. Biopsies (bronchoscopic, cervical nodes, aspiration).

F. Diagnostic Pneumothorax.

G. Exploratory Thoracotomy.

A. *Roentgenologic Diagnosis.*—In the group of lesions under consideration the x-ray, in most instances, gives the first evidence of any abnormality in the lung. The location and size of the lesion is easily ascertained; however, differential characteristics are not clear cut, as a rule. Rigler[10] stresses certain signs which may be helpful if present. These include the appearance of a solitary lesion not present in previous films, the presence or absence of calcium in the mass and, most important, notching or umbilication in the margin of the lesion. Calcification may occur in a number of conditions which produce solitary lung lesions. Among these are tuberculosis, hamartomas, coccidioidomycosis, histoplasmosis and metastatic osteogenic sarcoma. It is extremely rare for calcification to be present in a solitary bronchogenic carcinoma. On this basis, calcified lesions are usually considered to be benign, or, at least, non-malignant. Anatomic location of lesions has not proven helpful.

Laminagraphy may demonstrate the central focus of calcification in a solitary lesion of histoplasmosis, when present. However, Spitz and Schwartz[11] have not found the central calcification present in all solitary lesions of histoplasmosis. If lamination can be demonstrated, the lesion is considered granulomatous and sterile and need not be removed.[6] Occasionally an unsuspected central cavity may be revealed by this method.

B. *Skin Tests.*—While these are of interest they usually contribute little to diagnosis unless they should all prove negative. Such results would exclude the granulomatous possibilities, but would be of no value in differentiating between a benign or malignant lesion. When the test is positive for a specific disease, a coexisting condition is not excluded since tuberculosis and cancer may occur in the same lesion.

C. *Bronchoscopy.*—Since so many of the solitary lesions are located peripherally or in the upper lobes the use of this instrument is limited. Some valuable information may be gained through bronchial washings or the introduction of oil into a specific area of the lung.

D. *Laboratory Examinations.*—Complete blood counts are of value in evaluating the general condition of the patient. Polycythemia is present in some cases of arteriovenous aneurysm. The sedimentation rate may be elevated in malignant disease and less often in granuloma. Sputum and gastric washings should be studied for the tubercle bacilli and fungi. When such material is found to be positive, more extensive procedures may not be necessary. One must remember, however, that tuberculosis and cancer may exist in the same lesion. Negative results are so common in the solitary lesions that one can place little dependence on this procedure. Cultures are relatively time-consuming and, for this reason, have been condemned by some.[6] Serologic tests may be confirmatory in some instances, as in histoplasmosis.

E. *Pathologic Examination.*—These include studies of sputum and bronchial washings for cancer cells, and when exfoliated malignant cells are demonstrated the patient is saved further diagnostic studies. As in the previous procedures, results are too often negative to be of great help. Biopsy by bronchoscope is often impossible. Cervical node biopsies, when positive, usually indicate a hopeless situation and surgery is contraindicated.

F. *Diagnostic Pneumothorax.*—This procedure may occasionally differentiate a pleural from a pulmonary lesion.

G. *Exploratory Thoracotomy.*—From the foregoing, it becomes evident that a majority of the solitary lung lesions can only be identified by histologic study. Exploratory thoracotomy, therefore, remains the only procedure that can give an exact diagnosis. At the present time, the hazard of this procedure is slight, with about the same risk as that for appendectomy. The general public has been educated to accept biopsy in lumps of the breast. Lung lesions of the character herein presented should be as seriously considered, as promptly attacked.

DISCUSSION

The majority of solitary lung lesions are known to be granulomatous, malignant or potentially malignant. Even though the other two groups are important and should be removed, it is the malignant group that is most important. The toll from lung cancer continues to rise. In Canada, Phillips[12] reports an increase of 2.2 per cent in 1931 to 8.7 per cent in 1952 in lung cancer deaths. Kreyberg[13] reports an increase of 700 per cent in males and 400 per cent in females in lung cancer between 1930 and 1950 (from Norway).

Relatively large numbers of lung cancers begin in the branch bronchi within the parenchyma of the lungs. Many arise far enough toward the periphery as to become visible early as a small opacity. According to Maher[14] (quoting Rigler) these lesions become apparent when they reach a size of 3 mm. in diameter. Naturally, the earlier attack is made on these lesions the more likely will be a cure.

Delay in treatment is shared by both the patient and his physician. Jewett[9] found that an average of 10.5 months elapsed between the onset of symptoms and the establishment of a diagnosis. Delay attributed to the patient amounted to 4.0 months and to the physician 6.4 months. Others report similar experiences.[15, 16] It has been suggested that an attitude of "look and see" be substituted for that of "wait and see."

Even with the great strides in surgical management of all chest lesions, the cure rate for lung cancer remains discouragingly low, about 5 per cent.

SUMMARY

The responsibility for the correct handling of patients with a solitary lung lesion falls primarily on the family physician and the internist, as they will usually be the first consulted. The significance of these abnormalities must be realized, the limitations of the diagnostic methods appreciated and the danger of procrastination seriously considered.

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Diagnosis of Aural Vertigo

JAMES B. COSTEN, M.D., *St. Louis*

When physicians propose to discuss vertigo, it is certain that all subjective giddiness, dizziness or vertigo is some type of effect on the vestibular apparatus, its nerve supply or its cortical centers. From the patients' standpoint, however, the word is applied to a variety of unpleasant sensations, the complaint of headache competing for first place in frequency.

Weakness from malnutrition, fatigue, emotional shock, low blood pressure conditions, cardiac disorders, dyspnea of any origin are all translated by the patient as dizziness or "biliousness." A child learns from his first elevations of temperature that he is dizzy. The adult perpetuates the descriptive word in his febrile illnesses.

Faced with a patient whose principal complaint is dizziness, it is sometimes easier to prove its otologic source than to detach him from the firm conviction that it is liver, stomach or bowel in origin. This point is masked by drugs already taken for temporary relief, such as the salicylates, barbiturates, antihistiminics, stimulants or purgatives. Thus, before one begins to diagnose vertigo of otitic origin, daily medication assumed to be unimportant by patients, or presence of chronic disease, is balanced between work habits and sedentary deterioration. Work habits include flights of stairs and sedentary abuse is overeating, both deemed harmless by the patient with no cardiac reserve.

Also, the bedside table produces amphetamine inhalers and ephedrine nose drops, both unrestricted drugs used for nasal obstruction, and nasal obstruction to the patient may actually be dyspnea. Overuse of tobacco with nicotine absorption is never excluded until disproved. From this homely triad of inhalers and nose drops containing pressor agents and tobacco with a steady nicotine effect on the parasympathetic system, however minimal, one obtains a base line of habit factors before proceeding with more formal sources of vertigo.

Recognition of aural vertigo begins with a history of local pain or itching in the ear canal, earache, deafness, sudden or gradual, and tinnitus.

Small foreign bodies, hardened masses of cerumen or scales from the external canal, have a definite reflex irritative effect on the drum. Similarly, a bristle of hair, fixed to the canal, the end touching the drum, produces a fluttering tinnitus and vertiginous symptoms.

Simple obstruction of the eustachian tube, especially unilateral, from inflammatory or allergic reactions in the nasopharynx, or overclosure of edentulous lower jaws, produces vertigo by some kind of uneven pressure change in the middle ear which fails to ventilate on swallowing. This can be improved by inflation of the tube.

Serous otitis, produced by allergy or as unresolved otitis media, gives symptoms of vertigo, deafness, ringing tinnitus and unnatural localization of the patient's voice sounds to the affected side. Inspection of the drum shows it perfect, but with a glossy, straw colored sheen instead of the pearly luster of a normal drum.

Barotrauma, varying in degree in the ratio of intratympanic and external air pressure, depends on negative pressure exerted in flying. If mild, the symptoms are ear pain, full sensation and low pitched tinnitus. It is promptly relieved on ventilation of the middle ear, retraction of the drum and redness being the local findings. If severe, blood and serosanguinous fluid may fill the middle ear space from the vacuum effect. The pain is then much sharper and vertigo may be so severe as to demand prompt relief by drum incision. After the more severe type, deafness and buzzing tinnitus tend to remain for a time, or permanently.

External otitis, fulminating when moist and contaminated with fungus, quickly fills the ear canal with mold, excoriates the skin and produces painful swelling of the canal. Stuffiness of the ear, tinnitus and extreme pain ensue. The associated dizziness is due both to local reaction on the drum and, possibly, to an irritative vagus reflex from the painful swollen ear canal.

Menieres disease, or hydrops of the labyrinth, is characterized by acute, shocking attacks of vertigo, nausea and vomiting, usually with deafness of the affected ear, and usually unilateral. When it is without deafness of some degree, it is rated as pseudo-Menieres disease. The attacks recur at inconstant intervals, months or years apart, increasing deafness more or less with each attack. When tinnitus and deafness precede vertigo, subsiding when vertigo appears, the condition is known as Lermoyez's syndrome, and recovery proceeds more completely with this type. Much research has been done on the pathology of Menieres disease, Lindsay[1] giving it the name of "labyrinthine dropsy" and Williams[2] offering "endolymphatic hydrops" as more descriptive. This technical difference is based on the fact that it appears to be due more to increase in endolymph rather than cellular edema. During the attack the patient may experience rotary vertigo, seeing the objects in the room whirl around him as a central base, or he may be

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Read before the 98th Annual Session of the Missouri State Medical Association, April 8-11, 1956, St. Louis.

simply ataxic on walking, or be thrown to the ground with shot-like intensity. There are no changes in the drum or middle ear at any stage of Menieres disease.

Hyperacute hearing, normal hearing and slightly impaired hearing, and increased susceptibility of the labyrinth to stimulation are found in certain individuals with generally hyperkinetic responses to all stimulus. The threshold is quite low for noise and motion, the complaint being of vague dizziness. When improved by removal of diseased teeth or tonsils, it is sometimes described as toxic labyrinthitis or toxic neuritis of the eighth nerve.

True labyrinthitis is a more definite entity, of inflammatory origin, classed as acute or chronic, diffuse or circumscribed, serous or purulent, with various possible combined segments of the disease. It results from direct extension of infection from the middle ear. Serous diffuse labyrinthitis is the simplest form, produced by invasion of toxins and bacteria from an acute infection of the middle ear. The symptoms are vertigo, nausea and vomiting and deafness. Nystagmus to the diseased side is

TABLE I—CASES OF CHRONIC MASTOIDITIS WITH CHOLESTEATOMA

Case	*Otologic History*	*Symptoms*	*Local Findings*	*Treatment and Course*
1 Male Age 3 11/22/55 J.A.	Drainage, bleeding from right ear 18 months. Courses of antibiotics. T & A at age 2.	Dizziness and vomiting with otitis, right, on 11/5/55.	Right ear canal filled with a vascular polyp, fetid discharge, X-rays: smooth oval shadow fills mastoid space on right side.	Postauricular modified radical mastoidectomy, right, on 12/30/55. Cavity healed and dry on 2/20/56.
2 Female Age 5 6/7/55 N.B.	Running right ear 4 months, no response to courses of antibiotics.	Swelling of right ear canal, dizziness when dried secretion filled the canal.	Pulsating thin discharge from perforation in posterior half of drum. X-rays: all cell structures absent in right mastoid, dense.	Postauricular modified radical mastoidectomy, right, on 7/9/55. Dry cavity obtained on 8/26/55.
3 Male Age 8 1/7/56 J.B.	Frequent earaches all his life, right ear running past 2 years. Otitis controlled during medication, begins when none is given.	Headache and vomiting when otitis is severe.	Large defect in lower half of right drum, filled with granulations. Foul discharge. Nystagmus to left, all positions of eyes. X-rays: dense, acellular right mastoid.	Postauricular modified radical mastoidectomy, right, on 1/8/56. Recurrence of granulations, packing continued with slow recovery 2/27/56.
4 Male Age 16 12/13/55 D.H.	Bilateral otitis in infancy, discharging right ear 8 years. T & A removal 6 years ago, not improved.	Sudden attacks of vertigo, increased for one year and marked when operating a noisy corn machine.	Left drum intact, with calcified areas. The right drum had a large defect in posterior half, filled with a vascular polyp. Foul secretion. Audiogram: hearing normal above 2000 cycles, 25 dcb. loss below 2000, both ears. X-ray: dense mastoid right and left.	Endaural radical mastoidectomy, right, 12/14/55, fistula found on promontory, below stapes. Skin graft applied. Cavity healed and dry on 2/20/56. No vertigo since surgery.
5 Male Age 25 1/21/56 D.G.	Discharge from left ear all his life, antibiotics and local treatment for years.	Dull, aching pain around left ear, radiation to neck. Unsteady dizziness constantly, no severe attacks.	Left drum absent, granulations replace Schrapnells membrane. Tenderness over left mastoid tip. Audiogram: 40 dcb. loss left all tones below 2000 cycles. X-ray: dense left mastoid.	Endaural radical mastoidectomy, left, on 3/7/56. Small amount of cholesteatoma about attic space diseased granular bone in tip. Improved during first p.o. week.
6 Male Age 31 7/22/55 E.S.	Blocked sensation of right ear 4 to 5 years. Bleeding from right canal 6 months.	Deafness, right ear, dizzy spells worse while operating machine in quarry.	Right drum black, small perforation in posterior half of Schrapnells membrane. Black crust in canal. X-ray: all mastoid areas clear, cells normal. Audiogram: upper tones typical concussion curves of 70 dcb. right and 30 dcb. left at 4000 cycles.	Endaural modified radical mastoidectomy, right, on 8/2/55. Encapsulated mass of cholesteatoma filled aditus and attic space, stained black with old blood. Cavity healed on 10/7/55. Audiogram on 9/9/55 improved right to 45 dcb. Vertigo persisted to 9/9/55, then clear.
7 Male Age 32 11/7/55 E.B.	Discharging left ear all his life. Dizziness with exertion until 5 years ago. Swelling of neck below left mastoid began 10/15/55, not relieved by antibiotics.	Deafness in left ear, foul discharge. Stiffness of neck, painful swelling below left ear, no dizziness.	Large drum defect in lower half, blocked with a vascular polyp. Thin foul discharge. X-ray: complete destruction of all mastoid cells left, area of cholesteatoma borders lateral sinus defect in posterior cortex of tip. Audiogram: loss of low tones left of 30 dcb. and 60 dcb. for all tones above 500 cycles.	Endaural radical mastoidectomy, left, on 11/11/55, necrotic solution of all mastoid structures, including mesial wall and perilabyrinthine cells. Bezolds abscess, directly connected with mastoid spaces. Cavity healed on 3/2/56.
8 Male Age 32 1/7/56 M.D.	Discharging left ear all his life. Attack of vertigo 11/1/55, subsided on antibiotics. Chills and vertigo again on 12/19/55, transferred to McMillan Hospital.	Hard chill lasting 3 hours, temp. 40.2. Neck stiffness. discharge from left ear.	Heavy discharge from large defect in left drum. Some tenderness over mastoid emissary vein, left. No nystagmus. Prostrated, unable to describe vertigo.	Postauricular radical mastoidectomy, left, 12/20/55. Mastoid structures replaced by infected granulations; perisinus and extradural abscess; lateral sinus opened, no thrombosis. Good recovery, secondary closure of cavity on 2/4/56.
9 Male Age 64 1/13/56 E.J.	Deafness, many years, hearing aid worn on right ear. Headache in attacks with dizziness last 3 years.	Deafness, right sided headaches, with marked vertigo during attacks. Metallic noises in right ear.	Attic perforation right, drum bluish cast, crusts of dried blood in canal. X-ray: bilat. sclerotic mastoiditis, with cholesteatoma formation. right. Audiogram: uniform loss of 30 dcb., all tones in right ear.	Endaural radical mastoidectomy 1/13/56 with skin graft. Cholesteatoma occupied area along aditus next to dura, 1 cm. in diameter. Healed and dry 2/18/56.

present. Circumscribed labyrinthitis is the effect on one portion of the labyrinth, of slow erosion by chronic infection or cholesteatoma. It usually occurs within the aditus ad antrum, affecting the lateral semicircular canal, but the invasion may occur from any point in the tympanum. When enough bone resorption has occurred to form a fistula, direct pressure effects and infection extend to the membranous portion of the labyrinth. In the chronic state, recurrent mild vertigo and deafness are the only symptoms. With an acute exacerbation of the chronic otitis, dizziness and nausea increase which are worse on any motion of the body. All these symptoms are greatly increased in the acute diffuse suppurative labryinthitis. The affected ear is stone deaf and the nystagmus is toward the normal ear.

It seems pertinent to present the following table of recent cases of chronic mastoiditis, each one of which showed vertigo and nausea at intervals. Each had courses of antibiotics. Arranged in order of advancing age, the severity of symptoms and degree of involvement of mastoid and labyrinth show an orderly progression as the patients became older.

These cases revealing cholesteatoma at surgery vary in severity of symptoms from recurrent thin drainage of ear, not responding to medication, as in case 2, to marked sepsis as in cases 7 and 8. All have the common symptom of vertigo. All have disturbance of labyrinth function, especially case 4 in which fistula was demonstrated. A mild serous labyrinthitis may have been present in case 3. promptly subsiding. Therefore vertiginous effects appear to have resulted from pressure effects of accumulated secretions on the round window.

Survey of a patient described as "dizzy" before identifying aural sources begins with rapid elimination of general causes. These are primary and common:

1. Cardiovascular: (a) arrythmia, substernal pain, faintness, flushing and pallor; (b) failure, with cyanosis, nausea, dyspnea, shock, tinnitus, hypertension or hypotension, and (c) cerebral arteriosclerosis, especially rare thrombosis of posterior inferior cerebellar artery.

2. Intoxications; tinnitus, ataxia or not able to sit up, nausea, nystagmus, alcohol odor of breath. If barbiturate, acute or chronic, there is ataxia, confusion, nystagmus, suppressed reflexes.

3. Diabetes: (a) weakness, (b) nausea, (c) increased frequency of respiration, (d) dulling of sensorium, (e) acetone odor of breath.

4. Psychosomatic: (a) the neuroses, ruled out by exclusion and hysterias by normal ear findings.

5. Brain tumors: (a) Signalized by headache, vertigo, vomiting without nausea, focal signs and choked disk.

COMMENT

Familiarity with the symptoms of vertigo, tinnitus and deafness as typical of true Menieres syndrome makes the diagnosis appear simple. Variations in either of the symptoms produced the group called atypical Menieres syndrome. In order to confirm the diagnosis in true cases McNally and Stuart[3] reviewed 200 cases of vertigo which they had reported five years before. Of the original 200 cases, 78 had been classed as true Menieres, or labyrinthine hydrops. At the end of five years, twenty-four had been reclassified as other types. Not one of the atypical group developed signs that would justify them being permanently classified as Menieres disease. Fifty-four of the 200 cases of vertigo had true Menieres disease and an equal number had cardiovascular disease. Half as many had lesions of the central nervous system. This percentage grouping from the reliable source offers a good rule of thumb in the difficult diagnosis of vertigo due to true Menieres syndrome.

The diagnosis of Menieres type of vertigo, always suggested by sudden dizziness, deafness and tinnitus, actually depends therefore on the effect of treatment, and waiting to exclude cardiovascular or central nervous system lesions. The most widely used treatment today is a combination of (1) sedation, and (2) reduction of sodium levels in the body. For sedation, dramamine, bromides, barbiturates and atropine type drugs are used. To minimize sodium content of the tissues, the Furstenberg minimum sodium chloride diet is used, and to prevent sodium retention ammonium chloride is given as 15 grain doses three times daily at meals. Gastric distress is a problem in taking ammonium chloride. This can be controlled by using 7½ grain enseals (enteric coated) tablets, taken only during meals. Also, the medication is effective when used on alternate two day periods. The treatment is continued for one to two months, even if symptoms are controlled. Surgical treatment is advised only when the patient is completely disabled. Intracranial section (Dandy) of the vestibular nerve has the advantage of sparing the cochlear function to retain hearing. Destruction of the labyrinth by probing, coagulation (Day), or complete removal, sacrifices hearing entirely.

Local evidence of chronic ear disease such as foul discharge, dull headache on the side of the affected ear and vertigo of any grade with or without nystagmus, is an urgent indication for hearing record, x-ray study of the mastoid and prompt surgical treatment of the chronic mastoiditis.

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50 *and nine years*

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Grand Rounds Conference

Bile Duct Obstruction

Saint Louis University School of Medicine

DR. JOHN GANTZ: The case presentation for today (Record No. 55-6681) is of a 50 year old white female who was admitted to the Medical Service of Firmin Desloge Hospital for the first time on October 6, 1955, with the chief complaint of "skin turning yellow" of ten months duration.

This patient had never been hospitalized prior to August 1953, at which time a radical mastectomy was performed for what proved to be scirrhous carcinoma of the left breast. There were no nodes positive for malignant cells at operation. Following operation she was well until May 1954 when she noted mild anorexia, lassitude and weight loss.

In February of 1955, jaundice was noted and she was admitted to a local hospital for study. At exploratory laparotomy the liver was noted to be markedly enlarged, but no malignancy or metastatic lesions were detected. The bile ducts were noted to be collapsed and no calculi were found. A liver biopsy was performed which was interpreted as showing morphologically normal hepatic cells with bile inspissation, and mild lymphocytic infiltration. No definitive procedure was carried out at the time of surgery.

Several months postoperatively the patient had episodes of epistaxis, hematuria and purpura. A complete genito-urinary survey failed to reveal any abnormalities other than a decreased prothrombin time (39 per cent) which responded to parenteral vitamin K therapy, following which the bleeding episodes ceased.

In the remaining months prior to admission to the University Hospital, there was a gradual increase in her jaundice.

Her other past history was noncontributory. She had not taken any drugs, had not received injections or been in contact with persons having jaundice prior to onset of her illness.

Physical examination at the time of admission revealed a blood pressure of 125/80, pluse 92, respirations 22, and an oral temperature of 100.4 F. She was emaciated, with obvious evidence of weight loss, and marked icterus. The chest revealed a well healed left mastectomy scar with no evidence of recurrent malignancy. The heart and lungs were within normal limits. The abdomen was slightly protuberant, exhibiting a well healed laparotomy scar. There was generalized abdominal tenderness to deep palpation. The liver was markedly enlarged, measuring approximately 20 cm. from upper to lower borders in the midclavicular line, was moderately tender, and firm; no nodules could be palpated. No other masses were noted. There was no ascites or edema. The remainder of the examination was within normal limits.

Admission laboratory tests revealed an erythrocyte count of 4.0 million, hemoglobin 13.0, and hematocrit of 38. The leukocyte count was 8,100 with no "shift." Urinalysis revealed the presence of bilirubin (2+), and urobilinogen in small quantities. The stool contained bile, and the guaiac test for occult blood was negative. Blood electrolytes were within normal limits, fasting blood sugar was 107, and the nonprotein nitrogen was 27.

The liver profile showed a negative cephalin flocculation, thymol turbidity was 2 units, alkaline phosphatase was 4.9 sigma units (normal 3.5 units), cholesterol 360 mg. per cent, total proteins 6.4 gm. per cent, albumin 3.4 grams, globulin 3.0 grams, total bilirubin 21 mg. per cent, direct 11.0 mg. per cent.

During the remainder of the patient's hospitalization the liver profile remained essentially the same. The cephalin flocculation and thymol turbidity remained negative, plasma proteins showed no change and the alklaine phosphatase remained slightly elevated. Only traces of urobilinogen were present in the urine and a trace of bile was present in the stool. The serum bilirubin remained elevated throughout hospitalization but fell to low levels during the period that a biliary fistula was operating, which developed subsequent to the liver biopsy.

On October 11, 1955, intravenous cholangiograms were attempted; however, the biliary tree was not visualized. Three days later a liver biopsy was performed. This was interpreted as biliary cirrhosis secondary to cholangiolitic hepatitis. Because of the diagnosis of primary hepatic disease rather than primary extrahepatic obstruction, and encouraging reports on steroid therapy, the following treatment was instituted: cortisone, antibiotics, multivitamins and nourishing diet.

On October 27, 1955, the patient developed the signs and symptoms of an intestinal ileus with ascites. A Canter tube was passed with symptomatic and objective improvement. It was also noted that the patient was less icteric and laboratory studies showed the total serum bilirubin to have decreased to 10 mg. per cent.

A paracentesis was performed and 2,500 cc. of

Edited by William A. Knight, Jr., M.D., and William T. Fitzgerald, M.D.

Weekly Medical Grand Rounds are held at Firmin Desloge Hospital, the one presented held on February 10, 1956. These conferences are participated in by members of the Departments of Internal Medicine, Surgery and Basic Sciences of the Saint Louis University School of Medicine.

bile colored ascitic fluid was removed. It was believed that the patient had developed an intraperitoneal biliary fistula with a bile peritonitis and ileus. A continuous paracentesis was maintained by means of an intraperitoneal polyethylene tubing threaded through a No. 14 trochar.

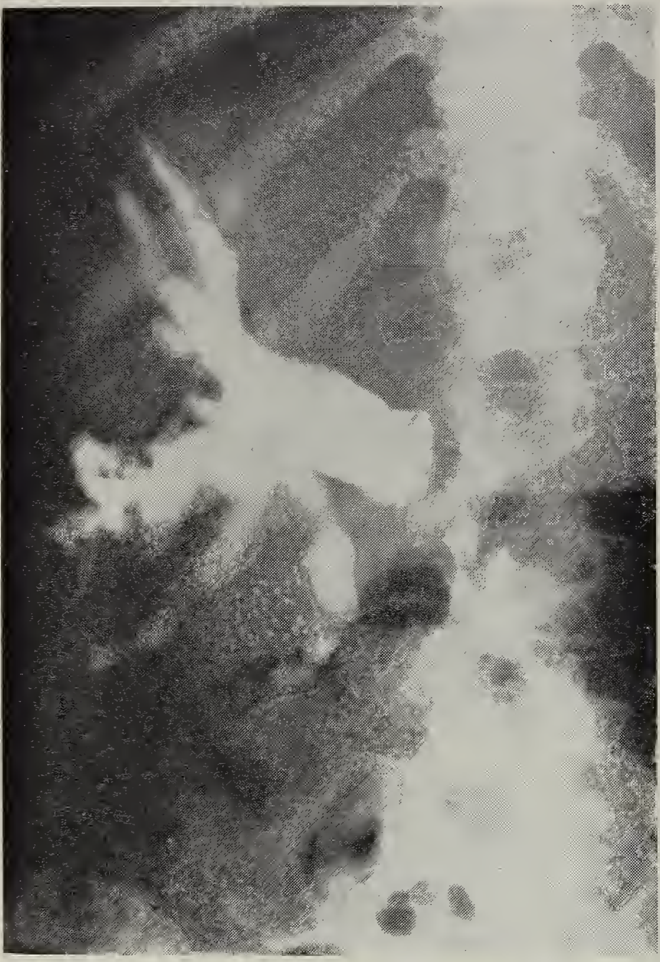

Fig. 1. Percutaneous transhepatic cholangiogram revealing obstruction at the junction of the right and left hepatic ducts.

The patient improved symptomatically with continual abdominal drainage. The bilirubin content of the ascitic fluid remained higher than that of peripheral blood. This peritoneal drainage averaged approximately 3 to 5 liters per week and contained 1 gram of protein per liter; the serum bilirubin fell to 2.7 mg. per cent, and to 6 mg. per cent in the ascitic fluid.

On January 17, 1956, cholangiograms were obtained by insertion percutaneously of a No. 20 gauge needle into a distended bile duct. Following aspiration of bile, 30 cc. of 50 per cent Hypaque was instilled (fig. 1). The cholangiograms revealed dilated interhepatic bile ducts, obstruction at or near the junction of the right and left hepatic duct. Because of the conclusive evidence of an extrahepatic obstructive jaundice, the patient was scheduled for surgery.

At operation the liver was exposed revealing a subdiaphragmatic abscess. At the junction of the right and left hepatic ducts, a firm fibrous mass representing common hepatic duct was noted. This extended distally, down to and including the cystic duct. The lesion described was removed *in toto,* including an apparently normal gallbladder. An anastomosis was performed between the end of the common bile duct and the side of a large dilated branch of the right hepatic duct easily visible on the inferior surface of the liver. A T-tube was inserted to splint the anastomosis. There was no evidence of metastasis. The patient tolerated the procedure well.

Since the operation the patient has shown progressive improvement. Her appetite has increased, the stool contains bile pigment and the icterus is decreasing.

Microscopic examination of the tissues removed at surgery revealed primary bile duct carcinoma (fig. 2). The gallbladder revealed evidence of chronic cholecystitis.

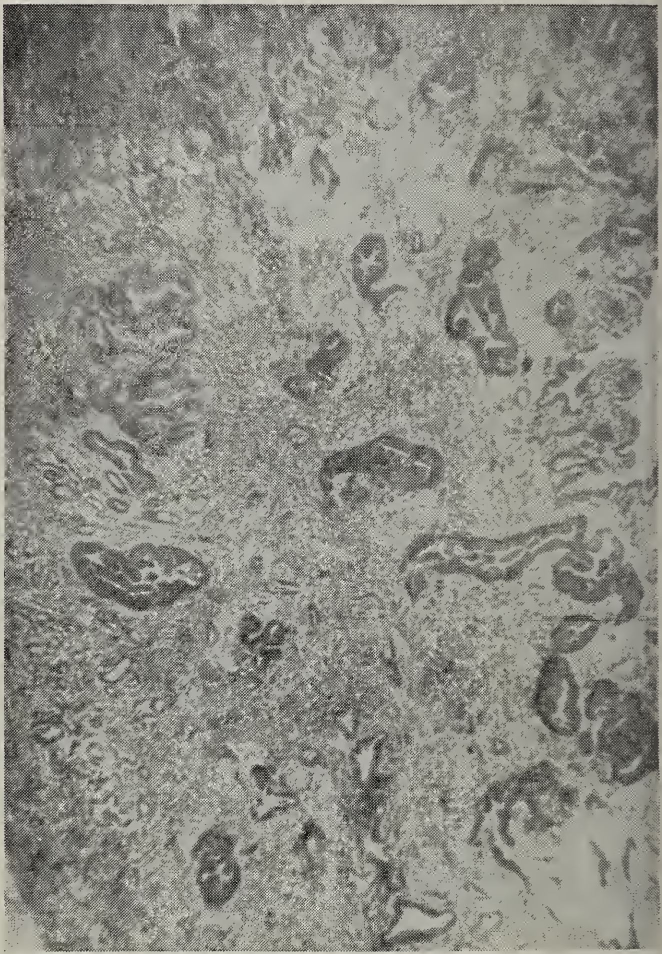

Fig. 2. Microscopic section of the common bile duct just below the junction of the right and left hepatic ducts.

Dr. Joseph Vacca: This then, is a case of prolonged obstructive jaundice that was found to have bile duct stenosis by percutaneous cholangiography. This stenosis was initially believed to be a benign stricture but later histologically was found to be bile duct carcinoma. The prolonged jaundice with the discovery of bile duct carcinoma would naturally raise a question of the relationship between benign stricture and carcinoma. This relationship is not to be discussed in this part of the conference; rather the more general aspects of jaundice, benign strictures of the bile ducts and carcinoma of the extrahepatic bile ducts will be presented.

Utilizing data published by Hartman, Flood *et al.*, table 1 was prepared to show the relative incidence of the hemolytic, hepatocellular and obstructive types of jaundice.

TABLE 1

RELATIVE PERCENTAGES OF CAUSES OF JAUNDICE

	Number	*Per Cent*	*Number*	*Per Cent*
Hemolytic	28	7		
Hepatocellular	124	31	113	48
Obstructive	248	62	122	52
Totals	400		235	

From Hartman and Flood *et al.*

TABLE 2

CAUSES OF OBSTRUCTIVE JAUNDICE (MODIFIED FROM BOCKUS)

I. Obstruction within the lumen of bile ducts.
    Gallstones.
    Inflammatory exudate—cholangitis, "catarrhal."
    Parasites—ascaris, fasciola hepatica.
    Neoplasms—primary or secondary.
II. Changes in walls of the ducts.
    Stricture—congenital, inflammatory, postoperative.
    Inflammatory changes—cholangitis or choledochitis.
    Neoplasm—primary or secondary.
    Spasm—of duct or of sphincter of Oddi.
III. Pressure on the bile ducts from without.
    Pancreatic lesions—neoplasms or cysts, pancreatitis.
    Hepatic lesions—neoplasms, abscess, gumma.
    Englarged glands at the portal fissure—neoplastic, tuberculous, Hodgkins disease.
    Duodenal lesions—ulcers, tumors.
    Gastric lesions—neoplasm, ulcer.
    Intra-abdominal adhesions—from liver, gallbladder, kidney.
IV. Cholangiolitic.
    Viral.
    Drugs—arsenicals, tapazole, methyl-testosterone, Thorazine.

It can be noted that in both series the obstructive type is most common. The data agrees with the opinion of Bodine who states that 50 per cent of jaundice is of the obstructive type. Hartman included hemolytic type jaundice while Flood *et al.* did not.

Bockus classified the causes of obstructive jaundice into three categories: (1) obstruction within the lumen of bile ducts; (2) changes in the walls of the bile ducts, and (3) pressure on the bile ducts from without. His classification is shown in table 2. A fourth category that clinically produces an obstructive type jaundice may be added, i.e., the "cholangiolitic" type. This is seen in some cases of viral hepatitis and also in the hepatitis secondary to certain drugs of which Thorazine is currently of most interest.

Several reported series on obstructive jaundice have been reviewed to determine relative frequencies of the causes of obstructive jaundice. The results are summarized in table 3.

The data would seem to indicate that choledocholithiasis is the single most common cause of obstructive jaundice. Benign strictures of the bile ducts accounted for almost 15 per cent of the total number of cases of obstructive jaundice—which is considerably higher, I believe, than is generally realized. As a group, carcinoma of the pancreas, gallbladder, bile ducts and liver account for a greater percentage of obstructive jaundice cases than any other cause. The frequency of carcinoma of the bile ducts as compared to the other types of carcinomas will be discussed later.

TABLE 3

CAUSES OF OBSTRUCTIVE JAUNDICE IN 844 CASES REPORTED IN LITERATURE

	Weir		*Gibson et al.*		*Flood et al.*		*Hartman*		*Total*	
	No.	*%*	*No.*	*%*	*No.*	*%*	*No.*	*%*	*No.*	*%*
Choledocholithiasis	105	45	42	17	66	54	79	32	292	34
Ca of pancreas, gall bladder, bile ducts, liver	38	16	157	65	56	46	69	28	320	38
Benign strictures of bile ducts ...	49	21	39	16			37	15	125	14
Pancreatitis							23	9		
Extrinsic pressure on the common duct							18	7		
Cholangitis							16	6		
Inflammatory reaction							5	2		
Contraction of common bile duct							1	0.2		
Totals	230		244		122		248		844	

Walters and Snell classify acquired benign strictures of the bile ducts into three categories: (1) primary inflammatory stricture; (2) stricture associated with calculus in the common bile duct, and (3) postoperative or traumatic stricture. The etiologic factors in 518 cases reported in the literature are summarized in table 4.

TABLE 4

CAUSES OF BENIGN STRICTURES OF THE BILE DUCTS IN 518 CASES REPORTED IN THE LITERATURE

	Cole et al.		*O'Malley et al.*		*Boren et al.*		*Cattell*		*Lahey*		*Totals*	
	No.	*%*	*No.*	*%*	*No.*	*%*	*No.*	*%*	*No.*	*%*	*No.*	*%*
Primary inflammatory (including pancreatitis)	9	43			2	2	11	9	2	1	24	5
Associated with calculus (including fibrosis of ampulla of Vater) ...			7	13	2	2	9	7	25	10	43	8
Traumatic (surgical and external) ...	12	57	46	85	77	96	103	84	212	89	450	87
Totals	21		54		81		123		239		518	

From this it can be seen that the great majority of bile duct strictures are secondary to trauma at the time of biliary surgery. However, it must be borne in mind that strictures can be present without previous surgery; these may be secondary to calculi in the common duct or secondary to cholangitis. Carter and Gillette have reported fifteen cases of biliary obstruction due to benign strictures in the intrahepatic bile ducts, well away from the possibility of direct surgical trauma. This lends credence to the theory that strictures may occur primarily in operative as well as nonoperative patients independent of surgical trauma.

Most post-surgical strictures are located in the common duct, the common hepatic duct or at the juncture of the common hepatic, cystic and common bile ducts—where the chances of trauma are the greatest during cholecystectomy. All the benign intrahepatic bile duct strictures reported by Carter and Gillette were within 3 cm. of the union of the two hepatic ducts; they have postulated that the strictured areas are a congenital site of election which become incompetent with resulting obstruction when the density of the bile is increased in association with an infectious cholangitis.

Ackerman and Regato state that carcinoma of the extrahepatic bile ducts occurs infrequently. The statistics that they reviewed lead to the conclusions that the ratio of carcinoma of the head of the pancreas to carcinoma of the bile ducts was 4:1; that of carcinoma of the gallbladder to carcinoma of the bile ducts was 3:1. However, Shapiro and Lifvendahl found in 2,500 consecutive autopsies twelve cases of carcinoma of the extrahepatic bile ducts, six cases of carcinoma of the gallbladder, four of the head of the pancreas and eleven primary carcinomas of the liver. Thus, in their series, carcinoma of the bile ducts occurs as frequently as primary carcinoma of the liver, twice as frequently as carcinoma of the gallbladder and three times as frequently as carcinoma of the head of the pancreas.

Carcinomas occurring near the ampulla of Vater are difficult to assess as to origin as they may arise from the common duct, the head of the pancreas, the ampulla itself or from the mucosa of the adjacent duodenum.

Carcinoma of the extrahepatic bile ducts occurs most commonly at the junction of the common hepatic, cystic and common ducts, and in the lower common bile duct as compiled by Neibling *et al.*

To summarize briefly then, one can conclude that approximately one half of all cases of jaundice are obstructive in nature, while choledocholithiasis is the most common single cause of obstructive janudice; data from the literature would seem to indicate that benign strictures of the bile ducts are not infrequent. It is important to realize that strictures can occur without previous biliary surgery although 90 per cent of all strictures are secondary to surgical trauma.

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*Modell, W.: The Relief of Symptoms, Philadelphia, W. B. Saunders Company, 1955, pp. 265-266.

03156

Case Report

Unilateral Multicystic Kidney Disease

JACKSON K. ETO, M.D., AND JOHN F. MACKEY, JR., M.D., *St. Louis*

SCHWARTZ[1] in 1936 described "Unilateral Multicystic Kidney." Spence[2] recently reviewed fifteen cases of this condition and added four of his own. This entity is to be distinguished from true polycystic disease, other cystic conditions of the kidney and renal neoplasms.

Polycystic renal disease is believed to be bilateral,[3, 4] fatal and probably is a hereditary condition. There may be associated hepatic cystic pathology and hypertension. In contrast to polycystic disease and malignant disease, the unilateral multicystic and simple cystic kidneys present none of these formidable aspects.

Spence points out common characteristics found in his series of unilateral multicystic kidneys. Anatomically, the kidney resembles a bunch of grapes. It is practically void of any normal architecture. The ureter may be patent, but is frequently atretic and the blood supply may be variable. The true infantile and adult polycystic kidney offers a semblance of a kidney pattern grossly and, microscopically, renal tissue is noted. The infantile polycystic kidney is sponge-like. The simple and multilocular cystic kidney is normal, except for the involved portion.

The following features are noted in unilateral multicystic disease:

1. Symptoms are not characteristic and may be absent.
2. Urinalysis may be normal.
3. Intravenous urography may show absence of excretion of opaque solution on the involved side with normal excretion and normal pattern on contralateral side.
4. Cystoscopy may reveal absence of ureteral orifice or ureteral obstruction on affected side.

REPORT OF CASE

M. T. H., a 9 month old white female, entered St. Mary's Hospital, St. Louis, on August 30, 1955. The chief complaint was progressive enlargement of the head. This enlargement was noted at 4 months. Spino-peritoneal shunt was performed and later revised. Because of progression of hydrocephalus, spino-ureteral or vesical shunt was planned.

Family History: Systemic review and physical examination were essentially normal except for the hydrocephalus and the spino-peritoneal shunt.

Intravenous Pyelograms (fig. 1): Examination of the urinary tract revealed the left kidney to appear normal in size, shape and position. Only the upper pole of the right kidney shadow could be visualized. An opaque catheter was observed, one end of which extended into the spinal canal in the lumbar region and the other end extended into the abdominal cavity. Following the intravenous injection of Hypaque, there was prompt excretion of the media into the pelvis and calices of the left kidney, and an essentially normal pyelo-ureterogram was observed. On none of the films was there any evidence of excretion by the right kidney.

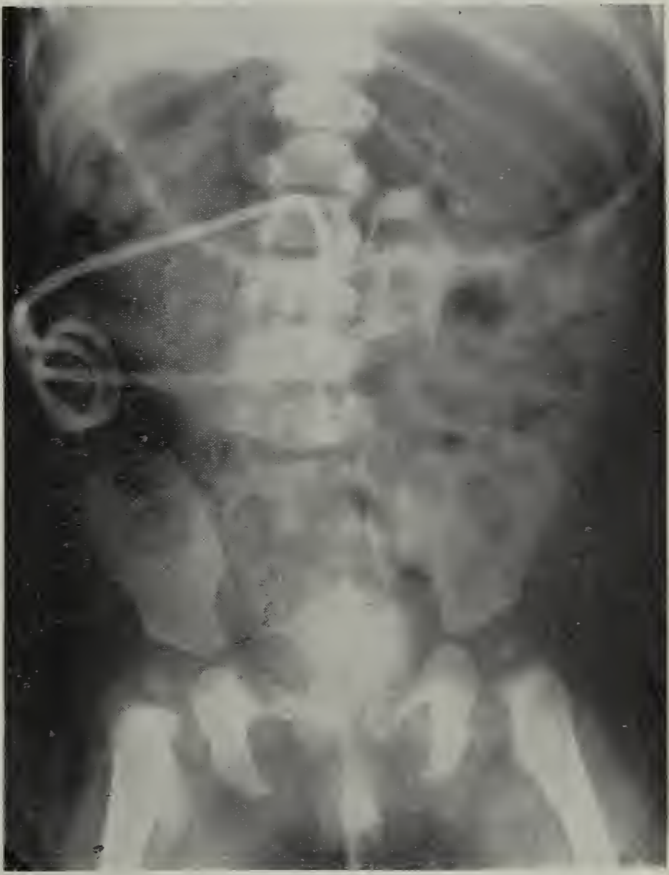

Fig. 1. Intravenous pyelogram. Nonfunction noted on right. Left pyelogram is normal. Opaque catheter represents spino-peritoneal shunt.

Cystoscopy revealed a normal left ureteral orifice which was catheterized with ease. No orifice was visualized on the right. A normal right retrograde pyelogram was observed.

Laboratory Findings: Spinal fluid culture was negative, urine culture showed the presence of E. coli sensitive to and controlled by Furadantin, hematology and blood chemistry normal.

On September 7, 1955, the right kidney and ureter were surgically exposed to determine the feasibility of spino-ureteral or spino-vesical shunt. A dumb-bell mass of cystic tissue was found in the kidney region. The

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From the Departments of Pediatrics and Urology, St. Louis University School of Medicine.

two segments resembled a small bunch of grapes about 2 centimeters in diameter. They were joined by a narrow isthmus of fibrous tissue (fig. 2). The pedicle and ureter were attached to the superior portion of this mass. The ureter was found to be a tortuous non-patent cord which terminated in a fibrous strand near the urinary bladder. These structures were removed. Microscopic examination of the kidney mass revealed dense fibrous stroma between the cysts. The pathologic diagnosis was congenital dysplasia of kidney and ureter.

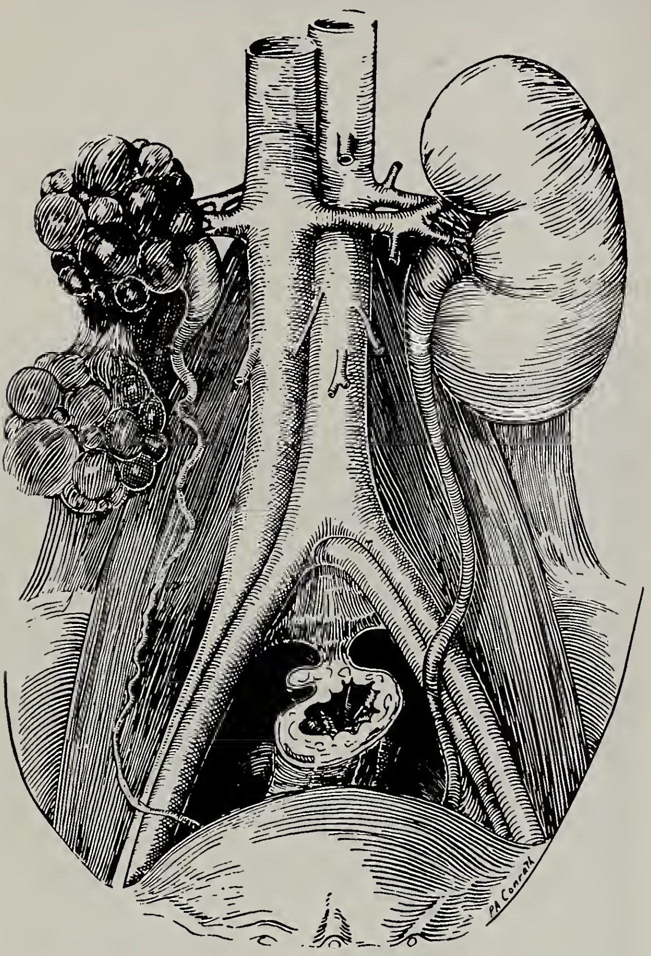

Fig. 2. Composite showing surgical specimen of multicystic kidney on right and necropsy specimen of normal kidney on left.

On September 12, 1955, the patient expired. An autopsy was performed. Gross and microscopic examination revealed the liver and left kidney and ureter to be within normal limits.

SUMMARY

This is the case report of a patient presenting substantial evidence of unilateral multicystic kidney disease. The involved kidney was found to be non-functional by intravenous pyelography with indefinite evidence as to size and shape. The opposite kidney appeared normal functionally and anatomically. Cystoscopy revealed absence of the ureteral orifice on the involved side. On the contralateral side the orifice and ureter were patent and a normal retrograde pyelogram was observed. Surgical removal of the abnormal kidney and ureter was effected. Pathologic examination showed multiple cysts with lack of renal substance. Atresia of the ureter was noted. The opposite kidney at necropsy appeared normal.

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Special Article

The Adequacy of Medical Education

MELVIN A. CASBERG, M.D., *Austin, Texas*

In a speech delivered on November 21, 1955, at the sixth Institute of the Thomas Alva Edison Foundation, Chairman Lewis Strauss of the Atomic Energy Commission in referring to scientific education warned the nation that the United States faces possible disaster because Russia is winning the "cold war of the classrooms." On the same day in another part of the country, Dr. Melvin Barnes, Assistant Superintendent of Oklahoma City schools, reported on the results of a survey conducted there which indicated that high school students in general had little or no desire to enter scientific careers.

Dr. Edward Turner,[1] Secretary of the Council on Medical Education and Hospitals of the American Medical Association, writing in the fifty-fifth annual report on medical education in the United States and Canada states that the number of applicants desiring entrance into medical schools has decreased annually for the last five years. He continues to warn that though this declension appears to be stabilizing, if this trend should persist it is possible that the schools will not be able to fill their freshman classes with qualified candidates.

Responsible individuals in the field of medical education should give serious thought to the question of supply and demand as it pertains to medical personnel. The warnings of the serious shortage of physicians is a debatable question and one whose pros and cons have been argued at quite some length by men equally qualified and equally familiar with the same series of statistics. Both sides are agreed that there is a mal-distribution of physicians and that a migration from metropolitan centers to rural areas would relieve the situation to a degree. Certainly the mass production of doctors is not the answer to the question for what is needed are more competent physicians, not just more physicians.

In spite of the annual decrease in applicants for entrance into medical schools during the last five years, the enrollment over this same period of time has shown a definite progressive increase. Similarly the past summer saw the record number of 6,977 graduates of approved medical schools in the United States. Simple calculations will demonstrate that currently approximately 4,000 physicians die annually (2 per cent of 200,000), thus presenting a positive balance of about 3,000 graduates per year. Though these figures are modified by a variety of factors such as the absorption of doctors into fields other than those of clinical, academic or research medicine, nonetheless these estimates demonstrate a definite and continuing increase in the physician population ratio in general. Those who would sacrifice quality of medical education for quantity should consider the long range program for it is within the realm of possibility that over the next twenty-five years there may develop a surplus of physicians in this country. Such a situation will be abetted by the increasing efficiency of the physician due in part to improved medical armamentaria as well as the delegation of more and more responsibility to ancillary health personnel.

Areas of medical personnel shortages will continue to exist regardless of the total number of people trained in the medical sciences. The reasons for these specific shortages will vary considerably, from that of the rapid development of a particular specialty field to the simple matter of economics. Inducements, not only financial but also opportunities and facilities for research, have led many a young scientist from the somewhat spartan paths of academic life to the economic security of industry.

Continuing beyond the problems of enrollment, medical education is confronted with the necessity of organizing the presentation of a constantly growing fund of scientific knowledge within a relatively fixed period of time. Faced with an ever changing scientific order, schools of medicine cannot afford the luxury of academic complacency but rather must undergo constant curricular reevaluation in the light of current and future educational demands. Not only must the present be analyzed but also the future explored.

There have been two fundamental revolutions in the field of medical education since the turn of the century, the second of which is still in progress. In 1910 the Flexner Report[2] initiated an academic house-cleaning which over the following ten year period culled out the unqualified institutions and resulted in the reduction of medical schools in the United States and Canada from a total of 155 to that of eighty-five approved four year schools of medicine.

The second revolution, perhaps better designated as an evolution, whose refining fires still burn brightly, was born in the educational travail related primarily to the period beginning with the second World War years. Many and varied factors have contributed to this upheaval in medical edu-

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Presented at the 98th Annual Session, Missouri State Medical Association, April 8-11, 1956.

Vice President for Medical Affairs, The University of Texas, Austin, Texas, effective July 1, 1956.

cation, the most important of which is the unprecedented advancement in medical scientific knowledge along with the impact of research on schools of medicine.

Through the warp and woof of this shifting of educational emphasis run the varied strands that make up the fabric of change; strands such as the increasing older age population; the influence of antibiotics on therapeutic methodology; the coming of age of biochemistry; the growth of health insurance programs; the cost of medical education; nuclear fission and radioactive isotopes; the increased scope of psychiatry and preventive medicine; the growth of interest in the medical specialties; the growing realization that medicine is no longer only a biological science but also a social science, and many other strands of equal significance. Under constantly changing terms of reference such as these it behooves American medicine to take inventory and determine the adequacy of current medical education.

The scope of medical education falls rather conveniently into four phases of a continuing process: premedical, undergraduate, graduate and postgraduate. While it is true that these sections are somewhat arbitrary and not always clear cut and that there are certain areas where responsibilities overlap, nevertheless, such a division simplifies the discussion of the whole.

PREMEDICAL EDUCATION

Dr. Rappleye,[3] Dean of the faculty of medicine at Columbia University, writes that "College preparation for medical, dental and public health fields should not be preprofessional in character" and that "Education is not 'pre' anything, but should be devoted to the objective of providing as broad a cultural education as the institution can provide." Certainly most medical educators will agree with this philosophy which was epitomized by Mark Twain when he wrote "If your doctor knows only medicine, you may be sure that he does not know even medicine."

The necessity for a liberal education as a background for the study of medicine, law, engineering or other professions has been misunderstood and misinterpreted both by the college student and his instructor alike. In discussing the broad classification of education in terms of scientific-technological studies on the one hand and humanistic-social studies on the other, Harry S. Rogers[4] of the Polytechnic Institute of Brooklyn, speaking at the inter professions conference on education for professional responsibility, states, "During recent years there has been widespread discussion concerning the ends and means of general education. Many reports have been written upon it, and many appraisals of it have been made by scholarly authors. A review of these publications leaves one with the impression that there is a consensus that something is wrong with general education. There is some normative accord among divergent ideas as to what is desired from general education in a free society, but there is a great lack of agreement as to how accepted objectives may be attained."

Most students in fulfilling the average entrance requirements for schools of medicine will utilize approximately two of their four college years in non-elective premedical subjects. These courses they are prone to consider as something apart from the liberal phase of their college curriculum, little realizing that an education to be broad must of necessity include the sciences. Again, it must be emphasized that inasmuch as medicine is a scientific profession it is essential that the student possess the mental tools with which to master the basic sciences, for regardless of the brilliance of a student in the field of music, ancient history or English composition, if this same student cannot master chemistry or physics, then success in the field of medicine is unlikely.

Having completed the basic science requirements the student should make every effort to enrich his academic heritage by exploring the arts and humanities. Far too frequently matriculants in schools or medicine have over-developed narrow fields of the so-called "required" subjects with a resultant distortion of their capacities as a whole. The excuse for such a curricular error frequently is that the student demonstrated unusual ability in a particular scientific field, therefore to the exclusion of development in areas of weakness he is permitted to satiate his mental appetite. Such a course of action is erroneous to say the least, for it compounds itself into two mistakes; first, as mentioned before, the student's development is uneven; and second, it results in a waste of time. For not only will much of the advanced course work be repeated, but also there is opportunity to explore these scientific fields more adequately during the course of undergraduate and graduate medical education.

In this problem of a balanced curriculum lies the weakest link of premedical education. In spite of the fact that a solution is not simple something should and can be done to correct this error. The responsibility is a dual one, resting on the shoulders of the liberal arts institutions and the schools of medicine alike. There must develop throughout the country a closer relationship between the men who guide the college students in their curricular choices and those who are responsible at a later date for their medical education. Some schools have forged ahead in this field while others have shown only a modicum of interest in student guidance. Liaison should be established between universities and medical schools with formal meetings at state and national levels for a joint evaluation of mutual objectives.

The premedical advisory committees of our colleges and universities across the nation can play a most significant role in the field of medical education. Who more than the instructors during the years of college preparation are better qualified to pass judgment on the character and integrity of the applicant to a medical school? Who other than these same instructors are in a better position to guide the student in strengthening his weaker facets and insuring a well rounded mental diet? The functions of a premedical advisor or advisory committee involve much more than the composition of a letter of qualification in support of a would-be matriculant into medicine, in fact, an advisory supervision of the premedical student should commence on the day of freshman registration and continue throughout the college career.

Much has been written and spoken on the selection of applicants for entrance to medical school. The academic standing of the would-be matriculant is not difficult to determine, for alphabetical and numerical ratings present a degree of assurance as to his or her relative intelligence. This hurdle having been passed, and let no one belittle its fundamental significance, the simplest part of the selective procedure has been completed. The admissions committee must now pass on such attributes as character and integrity, qualities which do not lend themselves readily to grading. An applicant to a school of medicine would do well to choose his character sponsors with deliberation. A detailed letter from an assistant instructor who has had personal contact with the student and can vouch for the applicant's scientific honesty is worth far more to the committee on admissions than a formal epistle from the professor who presents only information already available from the transcript of grades.

Personal interview of the applicant, though of importance, has definite limitations. Certainly actual contact with the student reveals some information as to habits of dress, speech, mannerisms and, to a degree, facility of ideation, but can this be interpreted in the light of success or failure in medicine? It would be revealing indeed to assign scores on an interview basis to some of our scientific leaders of today!

UNDERGRADUATE MEDICAL EDUCATION

The current revolution in medical education has been breaking down the barriers of strict departmentalism and erasing the academic curtain separating the preclinical from the clinical years. In the not too distant past the medical student was exposed to the influence of departmental autonomy and fought for the mastery of separate subjects as though each were a distinct stepping stone whose conquest led closer to the goal of graduation. Furthermore, this same student navigated the stormy seas of basic science courses with the fervent hope that once past these dangers of educational shipwreck he would sail into the calm and peace of the clinical years, the past soon to be forgotten as a bad dream. Far too often each department head taught on the premise that his department was the cornerstone of medicine and as a result the dean of the school of medicine practiced all the wiles of diplomacy in order to balance the intellectual budget of curriculum hours.

Departmental isolation was not limited to the preclinical years alone, for the student in his hospital rounds was subjected to a fragmented patient. This patient assumed the proportions of a bizarre, fractionated, anatomic specimen composed of isolated visceral, vascular and structural components which became diseased as separate physiologic units. Thus the junior or senior student examined a peptic ulcer case and not a patient with a peptic ulcer. To some such a distinction may sound rather absurd but around this point lies one of the fundamental inadequacies of medical education. Until this jigsaw puzzle of disease entities is put together in one piece and discussed as a sick patient and not merely as a sick stomach, the student will graduate without a correct therapeutic perspective. An old French proverb epitomizes this problem, "There are no diseases, there are only sick people."

Because of a growing awareness among medical educators that a change is in order, numerous experiments already are in progress. There are two major facets to the revolution in undergraduate current education, first, the need for closer correlation of subject material and, second, the realization that the social sciences as well as the biologic sciences are integral parts of medicine.

Correlation, as it pertains to this particular situation, works in two dimensions. On the one hand there is horizontal correlation between contemporary subjects such as anatomy and physiology, and on the other a vertical correlation between sequential subjects such as anatomy and surgery. Such an evaluation of subject material accomplishes two purposes; on the one hand it decreases overlap or repetition and on the other it permits an integration and mental cohesion of diversified scientific facts. How inefficient to study the structure of the stomach in the anatomy laboratory and then at a different time and place restudy the neuromuscular functions of this same organ in physiology and again the secretory functions in biochemistry. This conservation of time is essential in view of the constant expansion of scientific knowledge in the face of a relatively fixed time of four years of undergraduate study. Obviously all of the facts cannot be presented within this span of time, but it is the responsibility of medical educators to train the student in fundamental scientific thinking so that he possesses the tools for a continued study and evaluation of medical problems far beyond the day of his graduation.

Western Reserve University School of Medicine has inaugurated a curriculum change which incorporates correlation of basic science courses. The subject material is taught as a whole with no separate laboratories. Faculty members from several departments make up a "subject committee" teaching a correlated course of structure, function and disease. Work in the multi-purpose laboratory emphasizes not only the accumulation of facts but the logical solution of problems. The results of this experiment in medical education may well have far reaching effects.

The other facet in the revolution in medical education pertains to the less tangible, yet equally important field of social science. Here again several schools of medicine have plans in action to bring the student into early contact with the patient as a whole. Several years ago the University of Pennsylvania School of Medicine assigned freshmen students to families in the outpatient clinic who became the "medical godfathers" of the members of this particular family in all of their relationships to the University Hospital. The primary purpose of this innovation was to establish human relationships which later on, with the medical "coming of age" of the student, could develop into a medical relationship as well. In a similar way the faculty of Western Reserve University School of Medicine, in their attempt to establish a social consciousness in the student, have assigned members of the freshman class patients of their own in the persons of expectant mothers. The student interviews the patient and members of the family, is present at all of the prenatal clinic visits and observes the delivery. With the birth of the baby, the student concentrates on the study of the growth and development of the child. Here again is another effort to develop in the student an early sense of responsibility for the patient as a whole.

Likewise, in the clinical years of undergraduate study, educators have used variations of the preceptorship plan to bring the medical student into closer social relationships with the patient and his community. The University of Wisconsin School of Medicine for the last thirty years has used a preceptorial plan during the senior year of undergraduate study. Preceptors have been carefully chosen on personal and professional qualifications and are established physicians for the most part located in smaller communities. For a twelve week period out of a forty-eight week year the student works in direct association with his preceptor. Dr. William S. Middleton[5] in commenting on some of the results of this plan writes, "From the intimate observation of disease at the source our students evolve an entirely different viewpoint of medicine. They develop a fine appreciation of the patient-physician relationship at a period in their medical careers that will bring rich fruits for the future. In the appropriate atmosphere they learn their civic and community responsibilities."

Recently in a personal communication commenting on the Wisconsin preceptorial plan, Dr. Middleton* stated, "Aside from its educational value that cannot be gainsaid, there are two aspects that I should like to stress, namely, the leavening of the professional attitude of the preceptors and their associates through contact with the students, and the impact on the medical practice in the community. As a matter of fact, from many quarters we have had lay comments upon the importance of the latter factor. Having observed the operation of this system in Wisconsin for thirty years, I feel that I have a basis of evaluation and to give you the undergraduate reaction, I can merely repeat the common judgment, 'It is the most important element in our clinical years. If we were to select one discipline to be maintained, with the sacrifice of any of the others, it would be a preceptorship.' "

With the progressive increase in the scope of medical knowledge there has developed in medical practice a definite trend toward specialization. The specialty boards have assumed greater significance on the medical horizon year by year during the last two decades. Though the growth of specialization showed the greatest impetus in the immediate post World War II years, the movement is by no means new for, in 1854, over one hundred years ago, at a meeting of the American Medical Association a resolution was introduced concerning the problem of specialization. In view of the fact that the undergraduate student contacts a faculty made up almost entirely of specialists there is little wonder that most surveys will show approximately one half of the class planning to specialize, one third anticipating becoming general practitioners, and the rest prefering to enter teaching, research or other related professions. Robert Merton, a sociologist of Columbia University, reported to the 1955 annual session of the Association of American Medical Colleges that the first and second year students were quite consistent in their conception of the prestige of the various specialties. Furthermore, at the end of their four years this evaluation remained the same except that surgeons who had originally been ranked first had fallen back to third place. In a medical economy purporting that 80 per cent of man's ills can be handled by general practitioners and yet graduating classes of which some 50 per cent are planning to specialize, there is bound to result a personnel disproportion. Though schools of medicine may wash their hands of responsibility in regard to this problem, nevertheless, the onus to a degree still rests on their shoulders, and medical educators would do well to study their curricula in the light of exposing the undergraduate student to a representative cross section of medical practice. A program such as the Wisconsin preceptorial plan permits the student to evaluate the relative merits of medical practice in a more unbiased environment.

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* Dr. Middleton, who until recently was Dean of the University of Wisconsin School of Medicine, now is the Medical Director of the Veterans Administration.

The high cost of medical education poses a real threat to the schools of medicine. The total anticipated 1955-1956 basic operational budget for the eighty-one approved schools in the United States is approximately $100,000,000.[1] This sum does not include research and teaching grants from outside sources. It is estimated[6] that the total income of all 155 medical schools in 1910 was less than the operating budget of one of the better endowed schools of today. Samuel Harvey, in a speech before the American Surgical Association in Washington, D. C., on April 12, 1951, summarized the high cost of financing medical education by declaring that the school with an average class of seventy-five students required a plant costing $12,000,000 with an endowment of $20,000,000 providing an annual budget of $1,250,000, a faculty of sixty full time salaried teachers affording a student-faculty ratio of five to one. Though all may not agree with the practicality of these figures, they are indicative of the financial proportions of the problem.

Whereas in 1910 tuition fees covered 70 per cent of the cost of medical education, today tuition covers less than 25 per cent.[7] The cost per year of training one student in 1920 was $500, and today it is estimated that this figure approximates $2,500. The reasons for these changes are not difficult to determine for they all point to the simple fact of progress. The unprecedented advance in medical scientific knowledge over the last thirty years has resulted in the necessity for improved teaching methods with a more competent faculty as well as expanded facilities and complicated equipment. The financial plight of many a medical school is desperate.

Ward Darley[8] in his appearance before the President's Commission on the Health Needs of the Nation epitomized the situation by stating, "In the case of the publicly supported schools, while income from tuition, gifts, grants and endowments is important, city or state tax funds constitute the major support. During recent years, however, significant shifts in the relative importance of these several sources of income have taken place. Between 1940 and 1948 the gross income from tuition increased slightly, that from gifts, grants and endowments decreased slightly, while that from appropriations increased markedly."

Dr. Darley continued in his testimony to portray the situation for the privately supported institutions as alarmingly different from that of those publicly supported. In 1940 the main sources of income were tuition and fees, grants and gifts and income from endowment. During the next eight-year period the relative values of these income sources shifted significantly in that while all revealed a considerable gross increase, each, except for transfers from university general funds, decreased precipitously as far as its percentage proportion of total income was concerned. In conclusion, Dr. Darley summarizes this serious financial dilemma by saying, "The publicly supported schools must depend more and more upon the appropriation of public funds. As for the privately supported schools, present trends are such that as income from tuition, gifts, grants and endowments decreases, their only alternative is to continue to ask their parent universities for larger and larger support from general funds."

Considerable interest has developed of late in the efforts of the National Fund for Medical Education and the American Medical Education Foundation to raise money to supplement the financial needs of schools of medicine. A new concept of philanthropy is envisaged in which the individual is replaced by the corporation. Certainly such a philosophy is in keeping with the times and worthy of the support of industry and trade unions alike. The annual income in 1954 from these sources amounted to approximately $25,000 per approved school of medicine. It is hoped that this program will develop to a point at which it will play an ever increasing role of importance in the problem of financial aid to medical education.

No school of medicine can survive without a program of research. Just how large a role research should play is a much debated problem and one that complicates the computation of the cost of medical education. No one has answered this question to the satisfaction of the majority. There is no simple formula to determine what fraction of the research effort should be charged against medical education. Many of those responsible for the administration of a scientific educational institution are hard put to maintain a competent teaching program in the face of a constantly growing research effort.

Projected estimates[1] for research grants to medical schools from outside agencies for 1955-1956 total $54,470,989, an increase of nine million dollars over the preceding year. Thus the sum expended for research will equal more than half the amount of the operational budget for schools of medicine during the next academic year. Furthermore, it is evident that research activities are supported almost entirely by agencies outside the university. Some concept of the growth of research expenditures may be gained from the fact that as recently as the year 1940 it is estimated[9] that the annual budget for research in medical institutions totalled only three and a half million dollars.

Research financed by extra mural funding obtains support from three major sources, private philanthropy, corporations (in which one should now include organized unions), and federal and state grants. Here is one situation in which a gift horse should be looked in the mouth for it is quite

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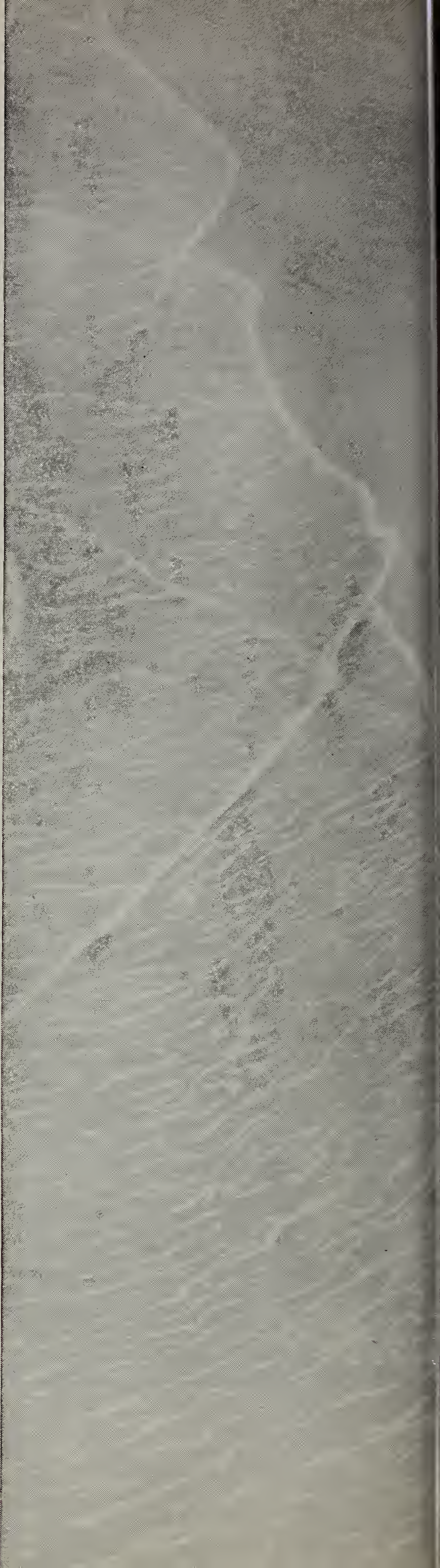

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simple for a school of medicine to become research grant poor. In order to be productive and on a sound financial basis, gifts for research ideally should have the following qualifications: first, adequate provisions for overhead expenses; second, continuity for a period of at least three years in order to permit intelligent planning, and third, nonspecificity of purpose.

It is of interest to note that the research budget of the National Institutes of Health has increased from $2,835,000 in 1945 to $97,573,000 for 1956.[1] Federal support of research has contributed immeasurably to the current progress of medical science and in spite of the fears on the part of some that federal grants for research might invite procedural control by the government, such actions have not materialized. Dr. Leonard Scheele, Surgeon General of the United States Public Health Service, in an address at the University of Tennessee College of Medicine on October 4, 1951, while discussing research grants stated, "We are firmly convinced that the Public Health Service, or federal government, should not attempt to set any general policy on this issue. Rather, we must allow the scientific community to decide, on the merits of each case, who and what should be supported, and the extent and nature of the coordination, if any, appropriate to each case. Any other stand by the Public Health Service would constitute a real and major invasion of the freedom of research."

The adequacy of medical education cannot be evaluated without a realistic appraisal of the staffing of medical schools. Herein lies a serious inadequacy especially in respect to the younger or lower ranking faculty. In the latest report by the Council on Medical Education and Hospitals of the American Medical Association[1] there is recorded a total of 108 authorized and budgeted positions currently unfilled in the basic medical sciences. Similarly, the clinical departments report a total of 143 vacancies. The problem is significant not only in relation to current needs but even more so in a projected estimate of future needs. Unless more young men and women can be attracted to the teaching profession the future portrays a serious shortage of educators of a more mature or professorial stature. The general competition for the service of the young scientist is keen and in some cases ruthless with the loser far too frequently being the school of medicine. It is not easy to convince a young man with a growing family and mounting financial obligations that his lot should be cast with the university, especially when industry or private enterprise is in a position to double or treble the academic salary with opportunities for research in addition. A glaring defect in medical education is an inadequate salary for faculty members of both high and low rank. Actually, when the decreased purchasing power of the dollar is taken into consideration many department heads are on a lower income scale now than they were twenty years ago. Until this problem is tackled and solved realistically, there will continue to be a shortage of men and women in the medical academic ranks.

GRADUATE MEDICAL EDUCATION

Graduate medical education may be defined as a period of formal training in preparation for entrance into a specialty or an advanced academic degree. Some concept of the growth of this phase of medical education may be gained by the fact that the number of interns and residents enrolled for the 1954-1955 academic year surpassed that of undergraduate students in schools of medicine. The Council on Medical Education and Hospitals reported[1] a total undergraduate registration of 28,583 as compared to 29,560 serving as interns and residents. Of this last figure 9,066 were interns and 20,494 residents.

The lowly intern, once a man of considerable prestige in the hospital heirarchy, is finding his sphere of responsibility encroached upon from both ends, the clinical clerkship from below and the residency from above. Some have questioned the value of such a position and feel that the internship no longer serves a useful purpose and should be incorporated into the undergraduate and residency levels of medical education. To a degree a part of the problem is one of terminology and might be clarified if one were to think in terms of time rather than a particular position. There will always be a first year of hospital training of the house officer caliber, call it what you may. Whether or not one designates this year of rotating responsibilities as an internship is immaterial just so long as such a period of comprehensive patient investigation is incorporated in the educational program. It is difficult to separate with exactness any particular section of the educational stream for there is progressive fluidity with no clear cut boundaries between phases of this medical experience. Caution must be used lest in appraising one portion of this process sight of the continuity of the whole is lost, for it is only in the light of the total program that any portion assumes its correct perspective.

The clinical clerkship cannot substitute entirely for the basic need for patient responsibility inherent in a rotating internship. While it is true that the clerk spends considerable time in the hospital and clinics and to a degree assumes responsibility for the patient, yet nevertheless, the student carries other educational obligations which demand his attention. He observes the hospital routines and participates in history taking and operations, but bears no direct responsibility for the outcome of these procedures. The intern, on the other hand, as a house officer, assumes a continuity of responsibility and directs his entire attention to the welfare of the patient.

Those who would absorb the rotating internship into the residency program, either directly or by way of the straight internship, fail to appreciate one of the fundamental inadequacies of current medical education. Earlier in this paper the dangers of the medical fractionation of man were emphasized and attention was drawn to the importance of the consideration of the total man in his total environment. Regardless of whether a student plans to be a specialist, a general practitioner or a teacher, somewhere between his undergraduate days and his continued graduate training there should be a period of time when he is exposed to the broad spectrum of the needs of man as a whole.

Under ideal circumstances the clinical clerkship, internship and residency should complement each other in a closely woven educational program. The quality of an internship should be strengthened by a well planned residency and clinical clerkship. One factor more than any other has undermined the effectiveness of the internship as a training program and that is the exploitation of this office by the hospital staff. Unfortunately there are many physicians whose only interest in obtaining a full quota of interns is that these fledgeling doctors carry out routine hospital chores. Under such circumstances the educational interests are of secondary importance and the intern's value lies primarily in the quantity of service he can render the hospital staff. In order to prevent such a travesty hospitals should undergo careful and repeated scrutiny to ascertain their qualifications to support an internship in its proper form. It is axiomatic that a strong educational program results in an internship schedule capable of giving a higher quality of medical care to the patient.

The phenomenal growth in graduate training during the last fifteen years may be appreciated by the fact that before the war in 1941 there were 5,256 approved residencies in all fields; after the war, in 1947, this number doubled to 10,422, and since this time the figure has almost doubled again to a total of 20,494 residents in training.

In the light of growing emphasis on graduate training and the constantly expanding facilities for this phase of medical education the question may be raised as to the possibility of the overproduction of specialty personnel. Victor Johnson[10] summarized the findings of two independent studies by stating that "The number of approved residencies exceeds, by about five times, the number needed to replace the specialists who die." Such an overproduction will probably be stabilized by the simple laws of supply and demand. In view of the increasing need for general practice residencies, many of the predicted vacancies may be filled by those interested in this field of medicine who desire additional training in such areas as surgery, gynecology, obstetrics and pediatrics.

During the last thirty years the residency training program has reached a rather high stage of efficiency and, as a result, the United States has become the world center of graduate medical training. Yet, in this very efficiency there rests an element of danger. Granted that the scope of medical science has expanded to the point at which it is necessary to develop specialties within specialties, nevertheless graduate training must recognize that the peripheral vision of a broader field of training supplements the central tubular vision of specialization and gives much clearer medical perspective.

In the recent past while examining a candidate for certification by the American Board of Surgery, I was amazed and somewhat chagrined at the lack of general surgical knowledge demonstrated by a young man who had completed a residency at a nationally known institution. Not only did this surgeon lack basic fundamental information, but to compound his ignorance he actually replied to certain questions in the supercilious attitude of one who considered it beneath his dignity to be familiar with the anatomy and physiology of an organ separated from his particular specialty field by an imaginary anatomic line created by the dictates of man.

POSTGRADUATE MEDICAL EDUCATION

Postgraduate medical education is that type of training which keeps the physician informed of the changes in medical science as they pertain to his particular interest. Douglas Vollan[11] in a survey carried out by the Council on Medical Education and Hospitals of the American Medical Association, covering questionnaires returned by approximately 5,000 physicians in the United States, gives the order of preference for keeping up to date in their own fields of practice as: medical reading, postgraduate course attendance, professional contacts, hospital meetings, and, last, medical society meetings.

Though the basic fundamentals of good pedagogy have not changed through the centuries, there are many new technics of instruction which can be utilized to good advantage in postgraduate education. Audiovisual aid in more recent years has assumed an important role in the dissemination of medical information. Motion pictures, tape recordings and television as forms of this type of educational aid have their own particular advantages. Pharmaceutical companies and surgical supply houses have pioneered and contributed materially to the development of this phase of instruction. It must be understood, however, that audiovisual aid regardless of its perfection cannot substitute for well organized and well presented teaching programs.

Television offers certain distinct advantages in the solution of the problems of geography and time in the instruction of the busy practitioner. Many experiments involving open and closed circuits as well as scrambled images are in progress exploring the feasibility of television in the field of medical education. On January 18, of this year, through the courtesy of a pharmaceutical company, grand rounds from Boston were televised by closed circuit to forty-six cities across the nation. Nationally known guest clinicians covered the subject matter of acute abdominal problems. Certainly television, in spite of certain inherent problems, will make a continuing important contribution to postgraduate medical education.

The competent physician never ceases to be a student and conversely the physician who ceases to study cannot be competent. In the final analysis, regardless of well laid plans for postgraduate studies, unless the physician realizes his responsibility to his patient and avails himself of such opportunities, these plans are negated. Studies[11] have shown that approximately 25 per cent of the practicing physicians in the United States attended postgraduate study courses in the academic year 1952-1953 and that the average physician received about thirty-six hours of instruction per year. Granted that this form of training is not the only method by which the practicing physician can keep abreast of medical progress, nevertheless, these statistics do portray a lack of interest on the part of far too many who should avail themselves of educational opportunities.

Some educators[12, 13, 14] feel that five years is the maximum period of time that a physician should go without participation in a refresher course. Though attaching a specific time element to an educational program lends itself to certain inaccuracies, it would appear that at least an average attendance of two weeks per year in postgraduate type of courses should be adequate. The term "adequate" is used advisedly for many more days of study per year could accrue to the physician's advantage. The annual allotment of time for formal courses of study should not accumulate beyond a three year interval, and preferably should be utilized on an annual basis. Obviously, this type of study should be supplemented by other means of personal education.

It seems paradoxical that in the United States where such a premium is attached to proper qualifications, and where a multitude of well directed restrictions are administered by a variety of licensing boards, that when one of these initial qualifying hurdles is past, a physician may practice medicine for the remainder of his life without any further educational effort. Realizing full well that legislating study courses is not the ideal solution, yet, it would appear that some form of established requirements and accreditation such as those defined by the Academy of General Practice might afford some impetus to physicians not prone to take advantage of postgraduate courses.

In spite of the steady growth in opportunities for postgraduate education there is evident a lack of coordination and of clear definition of objectives. While it is true that some states have progressed in this field, there are still many medical schools and medical societies offering postgraduate courses with little effort toward organization of a total program either for current presentation or long range planning. Many factors contribute to an acceptable postgraduate study plan, factors such as: high quality of instruction, correct geographic distribution of study centers, proper timing and concentration of courses in relation to the physician's schedule of practice, elimination of duplication, and selection of subject material pertinent to the needs of specific segments of practicing physicians.

Comprehensive postgraduate education will require a substantial investment of both personnel and money. Though such a program, to be the most effective, should function in close affiliation with schools of medicine, the financial demands should not jeopardize the already weakened economy of the undergraduate school. Support for these courses should be met by a realistic tuition schedule and maintained on a self-supporting annual budget. Many hidden expenses exist in an organization of this type and the budget estimate should be based on an accurate cost accounting.

Postgraduate education has developed in a rather haphazard and informal manner and, as a result, the quality of instruction has varied widely. In order to reach a stable maturity and recognized prestige it is necessary for the entire program to be organized on a more formal basis with support and direction not only at the county and state level, but also at the national level. This may appear to be a rather ambitious plan, however, close correlation of plans for both the present and the future at these levels will establish a coordinated objective and yield educational dividends worthy of the effort.

CONCLUSION

Medical science during the first half of this century has progressed so rapidly that medical education has become dyspneic and almost decompensated in her efforts to maintain an academic equilibrium. Standard therapeutic procedures of yesterday are obsolete today and diseases which decimated populations just a few years ago are now only of historic interest. New horizons of scientific discovery constantly expand medical armamentaria and open new vistas in the conquest of disease.

In the backwash of this turbulence of scientific progress medical education, in her effort to keep abreast of the times, finds herself in the throes of a revolution. Medical educators in an introspective mood are attempting to re-evaluate objectives in the light of phenomenal scientific progress. The question of the adequacy of medical education is one demanding serious thought on the part of all physicians.

In brief reiteration, the major problems facing medical education include: a balanced premedical curriculum with closer liaison between the university and the school of medicine; correlation of the undergraduate curriculum, both horizontal and vertical; the realization that the social sciences as well as the biological sciences are integral parts of medicine; the medical consideration of the total man in his total environment; the inadequate faculty salary schedule; the cost of medical education; the impact of research on medical education; the relationship of the clinical clerk, the intern and the resident in the teaching hospital; the possibility of the overproduction of specialty personnel, and the need for overall organization of the postgraduate medical program.

The optimistic note evident to those who have interested themselves in the adequacy of medical education is the realization that most educators are fully aware of these problems and are facing them with a healthy attitude that does not fear change and welcomes constructive criticism. American medicine owes a debt of gratitude to those unsung heroes who have dedicated their lives to the propagation of medical knowledge.

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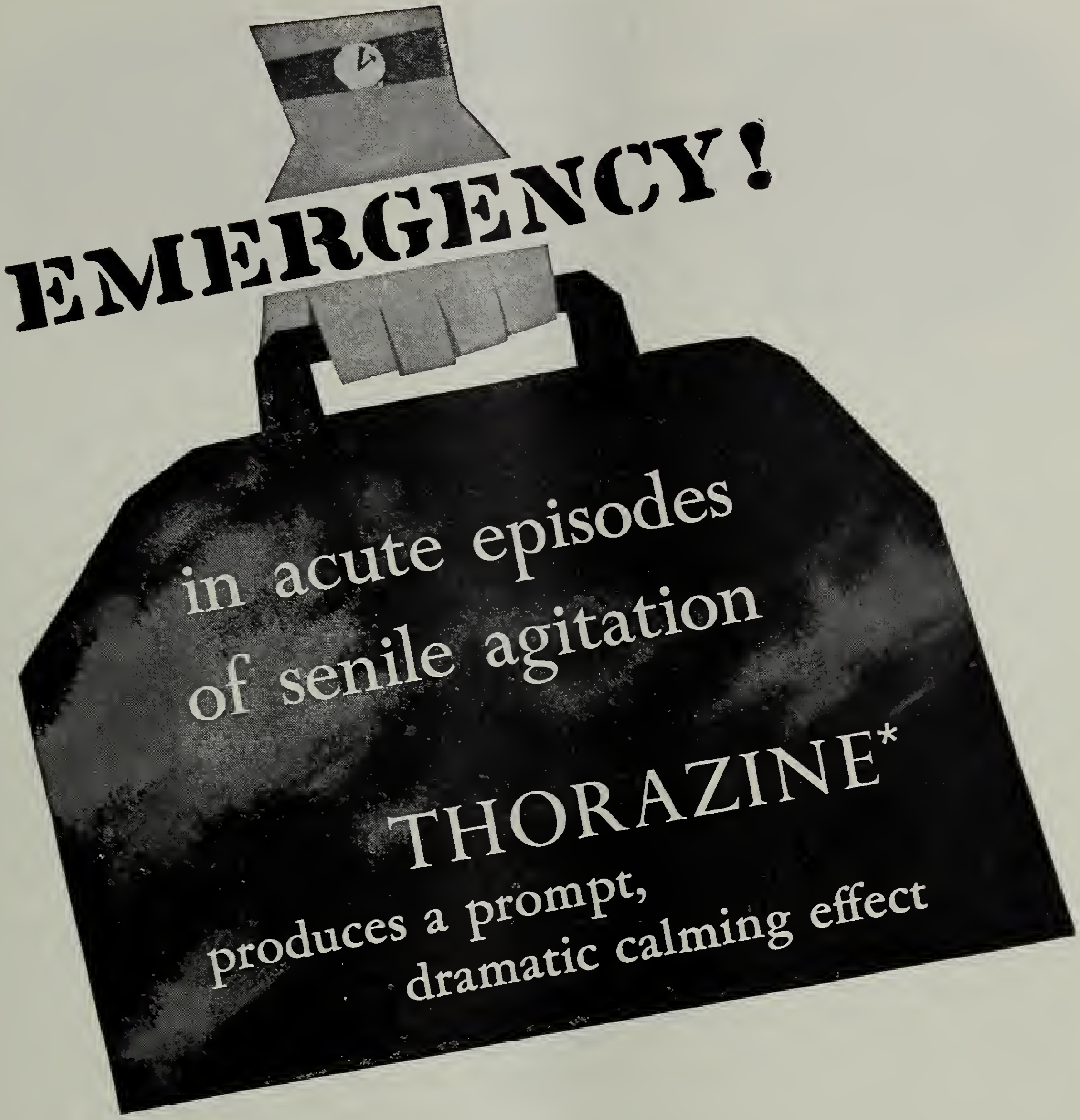
President's Page

Great Britain's new budget, recently announced by the Chancellor of the Exchequer, Mr. Harold Macmillan, provides income tax relief for self employed persons on premiums paid to purchase a retirement annuity. The tax relief will be limited to premiums not exceeding 500 pounds, or 10 per cent of earned income in any one year.

There are more than ten million self employed in the United States, including physicians. All of these persons would be helped if our Congress enacts a law similar to that of Great Britain.

Bills are presently pending in the Congress, known as the Jenkins-Keough bills, H. R. 9 and H. R. 10. A letter to your Congressman, advising him of your interest in the passage of these bills, may help in this effort. The column, "Quoting the Press," on page 714 of this issue of Missouri Medicine gives the views of some newspapers on this subject.

Carl F Vohs M.D.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EDITORIALS

Doctors Are Citizens

Missouri primary election date: August 7, 1956.

General election date: November 6, 1956.

If you are registered, you may vote in these elections. If you are not registered, well, you may not vote.

The right to vote is an inherited right of every citizen of the United States. Those of us who do not exercise this right are squandering our heritage.

The person who fails to register and vote is in a rather poor position to complain about high taxes, governmental policies which are contrary to his beliefs or community political affairs.

It is interesting to compare the voting record of this country with that of other countries. In England, for example, more than 82 per cent of the people vote in the general elections; in the last election 90 per cent of Belgians voted, and 89 per cent of Italians voted. In other Asiatic nations the record is even better than of these countries. And, yet, in the land of the free and the home of the brave, little more than 50 per cent of the eligible voters exercise their rights to vote for a president of our country. The voting record in our country is even poorer in elections other than presidential elections. In the coming primary election, for example, it is estimated that less than one third of eligible voters will vote.

It is true that many persons are away on vacation at primary time. The weather is hot and sultry and not conducive to stirring ourselves enough to get to the polls. Many persons believe that the primary dates should be changed to May or June rather than the August date. Nevertheless, at present, August 7 is the date. If you are not registered for the primary election, you may still vote in the general election if you register now. Contact the Board of Election Commissioners in your community or your county clerk. If you have changed your residence, you must register again or notify the Board of Election Commissioners, in order to vote.

A slogan widely used in the last election is appropriate now:

"The only votes which don't count are those which aren't cast."

Be sure you are registered.

Be sure you vote.

New American Medical Directory Issued

The nineteenth volume of the American Medical Directory, issued by the American Medical Association, was distributed in June. It lists 16,784 more physicians than were listed in the last volume, published in 1950.

As was true in the last census with Missouri showing a low percentage of increase in population, the physician population of Missouri also has not been apace with many other states. Slight losses were shown in several of the Midwest states, Arkansas, Illinois, Iowa as well as Missouri. Also Vermont and West Virginia showed decreases in physician population. The 1956 Directory shows seventy-nine less physicians in Missouri than in 1950, with membership in the Missouri State Medical Association remaining approximately the same.

As in general population increase, California led all states in the number of physicians gained, with Florida being second. In percentages, California had an increase of 24.6 per cent and Florida 49.8 per cent. The Pacific states had a gain of 23 per cent.

Statistical information given in the Directory shows that 30 per cent of the physicians in the United States are in general practice; 10 per cent give most of their attention to a specialty but do not limit their practice to it; 31 per cent limit their practice to a specialty; 11 per cent are serving internship or residencies; 6 per cent are in full time hospital services; 5 per cent are retired or not in practice; 4 per cent are not in private practice, and 3 per cent are in military service of various governmental agencies.

The Directory contains 3,122 pages and lists 240,638 physicians in the United States, its dependencies, and Canada, as well as American graduates temporarily located in foreign countries. The Secretary's Letter, A.M.A., in April, said that more than 250,000 changes of address have been recorded in the files of the Biographical Department of the A.M.A. since the last issuance of a Directory, that 46,348 names have been added, 24,225 deleted because of death and an additional 1,172 deleted for other reasons.

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Missouri Medical Meetings

Annual Meeting Missouri Academy of General Practice, Governor Hotel, Jefferson City, Oct. 24, 25, 1956.
Missouri State Medical Association Annual Session, Kansas City, March 31, April 1, 2, 3, 1957.
St. Louis Pediatric Society—second Thursday of each month, September through May at Medart's Restaurant, 8:00 p.m.

Component Society Meeting Dates

Audrain County Medical Society—second Thursday of each month.
Barton-Dade County Medical Society—third Wednesday of each month.
Benton County Medical Society—meets only on call.
Boone County Medical Society—first Tuesday of each month.
Buchanan County Medical Socitey—first Wednesday of each month.
Butler-Ripley-Wayne County Medical Society—first Wednesday of each month.
Callaway County Medical Society—third Thursday of each month.
Cape Girardeau County Medical Society—first Monday of each month.
Chariton-Macon-Monroe-Randolph County Medical Society—second Thursday of each month September through May.
Clay County Medical Society—last Tuesday of each month.
Clinton County Medical Society—meets only on call.
Cole County Medical Society—third Tuesday of each month.
Cooper County Medical Society—first Monday after the 15th of each month.
Dallas-Hickory-Polk County Medical Society—first Wednesday of each month.
Dunklin County Medical Society—third Tuesday of each month.
Franklin-Gasconade-Warren County Medical Society—last Tuesday of each month at the St. Francis Hospital, Washington, at 12:30 p.m.
Grand River Medical Society (Caldwell-Carroll-Livingston, Grundy-Daviess, Harrison, Linn, Mercer, DeKalb)—second Thursday of each month.
Greene County Medical Society—fourth Friday of each month.
Henry County Medical Society—meets only on call.
Holt County Medical Society—meets only on call.
Howard County Medical Society—meets only on call.
Jackson County Medical Society—fourth Tuesday of each month execpt June, July and August, at auditorium of General Hospital No. 1.
Jasper County Medical Society—second Tuesday of each month, September through May.
Jefferson County Medical Society—meets only on call.
Johnson County Medical Society—meets only on call.
Laclede County Medical Society—second Monday of each month at 6:00 p.m., at the Louise Wallace Hospital, Lebanon.
Lafayette-Ray County Medical Society—second Tuesday of each month at 7:30 p.m., at the Victory Cafe, Lexington.
Lewis-Clark Scotland County Medical Society—meets only on call.
Lincoln-St. Charles County Medical Society—third Thursday of each month.
Marion-Ralls-Shelby County Medical Society—fourth Tuesday of each month. 7:30 p.m.
Miller County Medical Society—meets only on call.
Mineral Area County Medical Society (St. Francois-Iron-Madison-Washington-Reynolds-Ste. Genevieve)—fourth Thursday of each month.
Moniteau County Medical Society—second Thursday of each month.
Newton County Medical Society—meets only on call.
Nodaway-Atchison-Gentry-Worth County Medical Society—first Monday in February, April, October and December.
North Central Counties Medical Society (Adair-Schuyler-Knox-Sullivan-Putnam)—meets only on call.
Ozarks Medical Society (Barry-Lawrence-Stone-Christian-Taney)—second Tuesday of each month September through June.
Pemiscot County Medical Society—third Thursday of each month.
Perry County Medical Society—second Thursday of each month.
Pettis County Medical Society—third Monday each month September through May.
Phelps-Crawford-Dent-Pulaski-Maries County Medical Society—fourth Thursday of each month.
Pike County Medical Society—third Tuesday of each month.
Platte County Medical Society—meets only on call.
St. Louis County Medical Society—second and fourth Wednesday of each month.
St. Louis Medical Society—first, third and fifth Tuesday of each month October through May.
Semo County Medical Society (Stoddard, New Madrid, Mississippi, Scott)—third Wednesday of each month September through May.
South Central Counties Medical Society (Howell-Oregon-Texas-Wright-Douglas-Ozark)—fourth Wednesday of each month.
Vernon-Cedar County Medical Society—meets only on call.
Webster County Medical Society—meets only on call.
West Central Missouri Society—second Thursday of each month.

Musings of the Field Secretary

Dr. Victor Buhler, immediate past president of the State Medical Association, addressed the third-year medical class of the University of Missouri on May 8. He spoke on the topic, "Medical Ethics." In developing this talk Dr. Buhler used numerous statements from the "Principles of Medical Ethics of the American Medical Association." He also effectively wove into his discussion some of the Biblical Ten Commandments. His talk was made more interesting and stimulating by the impressive use of illustrations relating to statements and actions of some doctors and others involving medical ethics.

The thirtieth annual meeting of the Missouri Public Health Association was held in Kansas City, Municipal Auditorium, June 11 to 13, under the efficient guidance and leadership of its president, Dr. Ralph E. Duncan, Kansas City. Judging from the large newspaper coverage, TV and radio time devoted to this meeting, considerable public interest in the Kansas City area was manifested in the proceedings. The featured speaker of the meeting was Otis L. Anderson, M.D., Assistant Surgeon General of the U. S. Public Health Service, Chief of the Bureau of State Services, who spoke at the dinner meeting on "Planning for Today's Health."

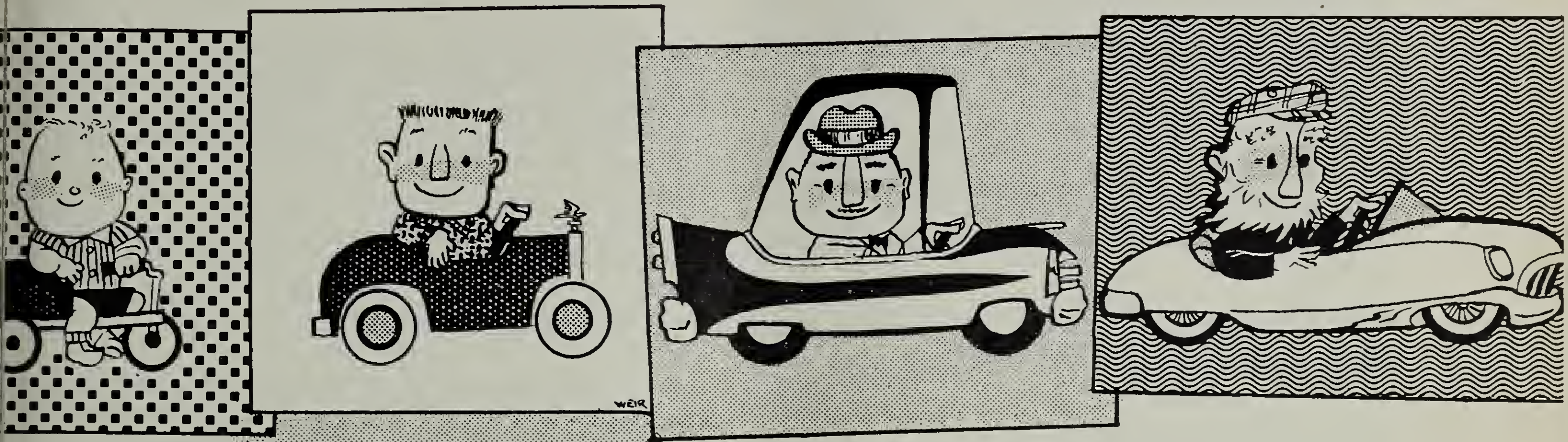
At the final session Miss Helen E. Kinney, director of the Bureau of Nursing of the Missouri Division of Health, Jefferson City, was installed as president, succeeding Dr. Duncan. Also at this session, a resolution was adopted unanimously, urging that the Division of Health be separated from the Department of Health and Welfare and made an independent agency responsible to the Governor.

The three day meeting of the Association was attended by about 300 persons.

On Sunday, June 10, prior to the opening of the American Medical Association meeting on June 11, the Annual Conference of Presidents and Other Officers of State Medical Associations was held in the Grand Ballroom of the Palmer House in Chicago. An unusually stimulating talk was given on this program by Mr. Henry Viscardi, Jr., legless president of "Abilities, Inc.," West Hempstead, New York. He spoke on "Workers in Wheelchairs." This was a discussion, illustrated by colored slides, of the development and operation of his company which employs only severely

(Continued on page 730)

through the ages . . .



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SAINT LOUIS KANSAS CITY

News

A three day postgraduate seminar on internal medicine was conducted at the Kansas City General Hospital, June 13 to 15, by **John B. Killough**, M.D., Columbia.

The Kansas City Society of Ophthalmology and Otolaryngology held installation of officers on May 19. **Barnard C. Trowbridge**, M.D., was installed as president; **William R. Eubank**, M.D., vice president; **Dick H. Underwood**, M.D., secretary, and **James T. Robinson, Jr.**, M.D., treasurer.

"Headache" was the subject of the June radio program of the Buchanan County Medical Society with **Herbert C. Senne**, M.D., as moderator, and **George W. Forman**, M.D., **T. Harry Saferstein**, M.D., **H. Ewing Wachter**, M.D., and **Henry C. Willumsen**, M.D., discussants.

An honorary Doctor of Science degree was presented **Ira H. Lockwood**, M.D., Kansas City, by Buena Vista College, Storm Lake, Iowa.

Among 317 physicians certified recently by the American Board of Obstetrics and Gynecology were **Samuel A. Montello**, M.D., Kansas City; **Richard I. Muckerman**, M.D., St. Louis; **Wallace R. Stacey**, M.D., Independence, and **Charles E. Sutton**, M.D., Cape Girardeau.

The newly elected officers of the St. Louis Urological Society are **Louis Berard**, M.D., president; **Robert F. Hickey**, M.D., president-elect, and **J. Byron Beare**, M.D., secretary-treasurer.

Among speakers at the 75th annual session of the South Dakota Medical Association at Aberdeen, S. Dakota, in June, was **Lauren V. Ackerman**, M.D., St. Louis.

"Operation—Music," the lead article in the May issue of the *Washington University Alumni Bulletin*, featured the musical career of **Vincent T. Williams**, M.D., Kansas City, commencing with his financing of his medical education by music and leading up to the recent performance of his symphonic suite "Abraham Lincoln" by the Topeka Symphony Orchestra.

General program chairman for the Missouri Heart Association conference to be held near St. Louis, Nov. 1 and 2, which will give general practitioner credit in cardiology, will be **John Smith**, M.D., St. Louis.

Among speakers at the New Jersey State Medical Society in May was **Richard L. Sutton, Jr.**, M.D., Kansas City, who spoke on "Treatment of Cancer of the Skin."

The Clay County representative on the Metropolitan Area Planning Council is **Robert H. Hodge**, M.D., North Kansas City.

A gold watch and plaque were presented to **J. T. Leslie**, M.D., Jefferson City, by the Cole County Medical Society at a dinner given for him in recognition of his fifty years in the practice of medicine.

Guest speaker at a meeting of the 13th District of Missouri Nurses Association held in Nevada was **Paul L. Barone**, M.D., Nevada.

Hundreds of visitors, principally from a tri-state area but also representing Florida, New York and Pennsylvania, celebrated "Dr. Ellery Day" in LaGrange early in May in honor of **W. L. Ellery**, M.D., on the completion of fifty years in practice.

"Intraprofessional Cooperation" was the subject presented by **R. Ned White**, M.D., Springfield, before the Springfield Society of Professional Engineers at a meeting in April.

A panel discussion on "Cancer Awareness" was presented over KWTO, Springfield, on April 23 by **Charles E. Lockhart**, M.D., **Dallas D. Anthony, Jr.**, M.D., **MacDonald Bonebrake**, M.D., and **R. Ned White**, M.D., Springfield.

On May 3, at a meeting of the City Utilities First Aid Course in Springfield, **Frank D. Sundstrom**, M.D., Springfield, discussed "Traction Splints."

As a part of Child Welfare Day activities in Springfield on May 10, **MacDonald Bonebrake**, M.D., took part in a skit "How Do We Adopt a Baby?"

The Missouri representative for the Committee on Trauma of the American College of Surgeons at the Midwestern Regional Conference of the President's Committee for Traffic Safety in Chicago in May was **Richard H. Kiene**, M.D., Kansas City.

The Cape Girardeau Rotary Club had as its speaker in May **O. L. Seabaugh**, M.D., who told them of the changes in his forty-eight years of medical practice.

One of twenty-five members of the Hodgen Surgical Club, **Avery P. Rowlette**, M.D., Moberly, attended a meeting of the club in New York recently.

At the annual banquet of the Guild of Catholic Psychiatrists in Chicago in April, **G. Wilse Robinson, Jr.**, M.D., Kansas City, presided as president.

The Desk and Derrick Club of Kansas City had as its speaker on May 9 **Robert M. Myers**, M.D., Kansas City.

A medal was presented to **Albert Preston, Jr.**, M.D., Kansas City, by Bishop Edward R. Welles in recognition of his contributive work in the Episcopal Church.

Guest speaker for the Cancer Crusade in Joplin on May 2 was **Terry E. Lilly, Jr.**, M.D., Kansas City.

One of the speakers at a graduate nurse institute sponsored by the Fifth District Missouri State Nurses' Association this spring was **Charles A. Brasher**, M.D., Mount Vernon.

The Eighth District Missouri State Nurses Association, meeting in May in Poplar Bluff, had as speaker **Edgar Baskett**, M.D., Poplar Bluff.

The Ava Kiwanis Club at a meeting in May paid tribute to **R. M. Norman**, M.D., and J. L. Gentry, M.D., both of whom have practiced medicine in the area for more than fifty years.

"Medic" was the subject **Edward H. Hashinger**, M.D., Kansas City, used in addressing a dinner meeting of the Pi Beta Phi Alumni Club of Kansas City.

The *Cape Girardeau Southeast Missourian* on May 10 carried an article and picture of **C. B. Farrar**, M.D., Flat River, on the beginning of his second half century of practice.

Appointment of **Harry L. Alexander**, M.D., St. Louis, to the National Advisory Allergy and Infectious Disease Council, was announced in June.

Among speakers at a one day institute on teamwork in the state hospitals held at Columbia on June 4 was **Henry V. Guhleman**, M.D., Jefferson City, who spoke on "Evolution of the Team Concept."

Among members of a committee to formulate "plans for action" in event of disaster in the Monett area is **Robert R. Donley**, M.D., Monett.

Speaker at a May meeting of the Unicity Rotary Club, meeting in Flat River, was **Jack Mullen**, M.D., Bonne Terre.

Officers of the Missouri chapter of the American College of Surgeons recently elected are **John J. Modlin**, M.D., Columbia, president; **W. A. Bloom**, M.D., Fayette, vice president, and **James M. Baker**, M.D., Columbia, secretary-treasurer.

The twenty-fifth anniversary of the establishment of the staff of St. John's Hospital, Springfield, was celebrated May 24, in connection with the celebration of Sister Mary Elizabeth of her fifty years in the Sisters of Mercy Order. The physicians are **F. T. H'Doubler, Sr.**, M.D., **Robert Williams**, M.D., **J. H. Fulbright**, M.D., **John Wood Williams**, M.D., **C. B. Lemmon, Sr.**, M.D., **E. M. Fessenden**, M.D., **Arch H. Lowe**, M.D., **Urban J. Busiek**, M.D., **George W. Hageboom**, M.D., **W. S. Sewell**, M.D., and **J. N. Wakeman**, M.D.

At the annual meeting of the National Association of Private Psychiatric Hospitals, made up of 130 hospital members in this country and Canada, **Paul Hines**, M.D., Kansas City, was named president-elect.

The Missouri Society of Pathologists elected **Joseph E. Flynn**, M.D., Columbia, president at their annual meeting in April.

The Missouri Heart Association named **Walter Baumgarten, Jr.**, M.D., St. Louis, president at the seventh annual meeting.

Recent speakers before medical secretary and assistants groups were **Robert J. Mueller**, M.D., St. Louis, in Hannibal, and **S. W. Scorse**, M.D., Joplin, in Joplin.

The second Edward Lorenzo Holmes award from the Institute of Medicine of Chicago has recently been given **Bernard Becker**, M.D., St. Louis.

The Licensed Practical Nurses of the Columbia District had as a speaker in May **Lawrence K. Epple**, M.D., Mexico, who spoke on "Medicine in Service, Especially the Navy."

Open house was held on May 13 by **Leroy Simmons**, M.D., Sarcoxie, and his wife, in commemoration of Dr. Simmons' fifty years in the practice of medicine.

Recently appointed general medical advisor to the Southwestern Bell Telephone Company is **John W. Berry**, M.D., St. Louis.

Physicians receiving certificates of fellowship in the American College of Chest Physicians at its June meeting are **Florence E. MacInnis**, M.D., Kansas City; **John B. Meyers**, M.D., **Masao Ohmoto**, M.D., and **R. Jerome Williams**, M.D., St. Louis. Alfred Goldman, M.D., St. Louis, was reelected regent of the College for several states and **Charles A. Brasher**, M.D., Mount Vernon, is governor for Missouri.

The College Medal of the American College of Chest Physicians, presented each year for meritorious achievement in the specialty of diseases of the chest, was awarded **Henry C. Sweany**, M.D., Mount Vernon.

In recognition of his "many years of service to public health in Missouri," **John Wood Williams**, M.D., Springfield, was presented the W. Scott Johnson annual award of the Missouri Public Health Association.

The St. Louis University School of Medicine Medical Alumni recently elected **Jerome I. Simon**, M.D., St. Louis, president.

A certificate of appreciation together with a 15 year pin were presented **W. O. Finney**, M.D., Chaffee, at the annual meeting of the Scott County Chapter of the National Foundation for Infantile Paralysis.

Presiding at a reunion celebrating the fiftieth anniversary of the first graduating class of McKinley High School, St. Louis, was **Frederick O. Schwartz**, M.D., St. Louis.

An honorary degree of Doctor of Humane Letters was presented **Edwin C. Ernst**, M.D., St. Louis, by Moravian College, Bethlehem, Pa., recently.

The weekly luncheon meeting of the Jefferson City Kiwanis Club was recently addressed by **John I. Matthews**, M.D., Jefferson City, who spoke on "Playtime and Your Heart."

Recently elected officers of the staff of the St. Mary's Group of Hospitals of St. Louis University are **Raymond O. Muether**, M.D., president; **Grey Jones**, M.D., vice president, and **Paul Murphy**, M.D., secretary.

NEW MEMBERS

Botwin, Arnold E., M.D., 7908 Windsor, Kansas City. Jackson County Medical Society.

Brooke, Clement E., M.D., 501 Edgewood, Columbia. Boone County Medical Society.

Cooper, Thomas J., M.D., 3714 Washington Blvd., St. Louis. St. Louis Medical Society.

Davis, Richard E., M.D., 7523 Mohawk Drive, Kansas City. Jackson County Medical Society.

Dunham, Richard B., M.D., 826 Beaumont Medical Building, St. Louis. St. Louis Medical Society.

Gloyne, Howard F., M.D., 231 West 47th Street, Kansas City. Jackson County Medical Society.

Grabau, Gene H., M.D., 1342 Belgrove, St. Louis. St. Louis County Medical Society.

Hamill, Robert W., M.D., 4620 Nichols Parkway, Kansas City. Jackson County Medical Society.

Handley, James M., M.D., Independence Sanitorium, Kansas City. Jackson County Medical Society.

Hepner, Walter Ray, Jr., M.D., 1112 West Broadway, Columbia. Boone County Medical Society.

Holt, Waldo S., M.D., 5901 Sunrise Drive, Mission, Kansas. Jackson County Medical Society.

Mellis, Richard T., M.D., 1515 Lafayette Avenue, St. Louis. St. Louis Medical Society.

Ploussard, John H., M.D., 219 Lister Building, St. Louis. St. Louis Medical Society.

Porporis, Arthur A., M.D., 510 S. Kingshighway, St. Louis. St. Louis Medical Society.

Powell, Nelson S., M.D., 3735 Eaton Street, Kansas City, Kansas. Jackson County Medical Society.

Powers, William E., M.D., 510 S. Kingshighway Blvd., St. Louis. St. Louis Medical Society.

Sheahon, John A., M.D., 123 North Elmwood, Kansas City. Jackson County Medical Society.

Sommer, Ross Baker, M.D., 8604 White Avenue, Brentwood. St. Louis County Medical Society.

Stewart, Robert H., M.D., Sedalia. Pettis County Medical Society.

Swerdlow, Martin A., M.D., 4901 West 70th Street, Kansas City. Jackson County Medical Society.

Tarvydas, Francis, M.D., Edina. North Central Counties Medical Society.

Thomasson, Robert E., M.D., 1515 Lafayette Avenue, St. Louis. St. Louis Medical Society.

Weiss, James M. A., M.D., 7150 Willow Tree Lane, University City. St. Louis County Medical Society.

DEATHS

Plummer, Grover C., M.D., Buffalo, a graduate of University College of Medicine, Richmond, Va., 1909; member of the Dallas-Hickory-Polk County Medical Society; aged 71; died May 17.

Hill, Roland, M.D., St. Louis, a graduate of the Medical Faculty of Trinity University, Toronto, 1890; honor member of the St. Louis Medical Society; aged 88; died May 28.

Hartigan, Frank X., M.D., St. Joseph, a graduate of Ensworth Medical College, 1910; member of the Buchanan County Medical Society; aged 68; died June 9.

White, Edwin C., M.D., Kansas City, a graduate of Rush Medical College, 1913; honor member of the Jackson County Medical Society; aged 68; died June 20.

Capell, Clarence S., M.D., Kansas City, a graduate of Creighton University School of Medicine, 1902; honor member of the Jackson County Medical Society; aged 82; ded June 24.

NATIONAL DISEASE AND THERAPEUTIC INDEX REPORTS

The National Disease and Therapeutic Index, a medical statistical research program, has completed its first three months of operation with the promise of interesting and useful results. Designed to provide information for continuous study of the nature, scope and frequency of occurrence of nonfatal disease, injury and other conditions as seen by the doctor in private practice in the United States, the program involves the compilation of statistical data showing why patients see doctors and what types of treatment they receive.

Approximately nine hundred doctors, located in twenty-seven statistically selected, representative areas throughout the country, will participate in the project. At present twenty-three doctors in Kansas City and vicinity are cooperating in the program, and enlistment of additional panel members will be increased to thirty-two. An analysis showed the following representation by types of practice in the Kansas City area: eleven general practitioners, four internists, three obstetrician-gynecologists, two urologists, two pediatricians and one eye, ear, nose and throat specialist.

Each cooperating doctor will report four times per year, giving the age, sex, diagnosis or diagnoses, and therapeutics administered or prescribed for each patient seen during the course of a forty-eight hour period once each quarter.

The data to be gathered by means of the National Disease and Therapeutic Index is planned to aid: medical educators in planning new and revising current curricula; medical investigators in determining the direction to be taken and the goals to be sought in research; practicing doctors, particularly in efforts directed toward preventive medicine; health organizations in planning establishment and development of future programs and revision or possible abandonment of current ones, and pharmaceutical manufacturers in research and product development designed to meet current and future needs.

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Councilor District News

FIRST COUNCILOR DISTRICT

DONALD M. DOWELL, CHILLICOTHE, COUNCILOR

Clay County Medical Society

The regular monthly meeting of the Clay County Medical Society was held at St. Lukes Episcopal Church, Excelsior Springs, on Tuesday evening, May 29.

The scientific program was presented by Dr. Gordon Sauer, dermatologist of North Kansas City and Kansas City. Dr. Sauer spoke on '"Common Skin Disorders."

S. O. Schroeder, M.D., *Secretary*

Grand River Medical Society

The Grand River Medical Society met May 10 at the Strand Hotel, Chillicothe. There was a good attendance.

After the dinner, Mrs. Ralph W. Bohnsack accompanied at the piano for Mrs. Maurice Frain, Mrs. Wally Nelson and Mrs. James Price who sang several songs, which were well received. The Auxiliary then retired to their meeting.

The scientific program was presented by Dr. G. Wilse Robinson, Jr., Kansas City, who discussed "Psychotherapy in the Office of the Family Doctor." This was a fine, outstanding presentation of an interesting subject, followed by discussion and questions.

The minutes of the last meeting were read and approved. There being no further business, the Society adjourned.

E. A. Duffy, M.D., *Secretary*

SECOND COUNCILOR DISTRICT

W. F. FRANCKA, HANNIBAL, COUNCILOR

Chariton-Macon-Monroe-Randolph County Medical Society

The Chariton-Macon-Monroe-Randolph County Medical Society held its monthly dinner meeting Thursday evening, May 10, at the Woodland Hospital.

Dr. Harry Statland, Kansas City, Associate in Medicine at the University of Kansas Medical School, spoke to the Society on "Fluid and Electrolyte Balance."

Dr. Statland discussed the symptoms which occur with derangement of electrolyte and water balance in the body and the proper treatment necessary for its correction.

Mr. William Green, Executive Director of the Missouri Heart Association, Columbia, addressed the Society in order to acquaint the members with one of their current educational programs called "Heart of the Home" which embraces a work simplification for physically impaired women with heart disease. A second portion of this program is called the low sodium (salt) cookery school which deals with the proper preparation of foods for cardiac patients. Mr. Green indicated this educational unit would be brought to this vicinity when called for by the doctors. The Society endorsed not only the program but the entire program of the Missouri Heart Association directed toward education and aid to the heart patient.

The following members were present: Dr. F. A. Barnett and Dr. G. M. Ragsdale, Paris; Dr. James E. Campbell and Dr. D. E. Eggleston, Macon; Dr. F. L. Harms and Dr. G. W. Hawkins, Salisbury; Dr. G. C. Rice and Dr. D. D. Stuart, Brunswick; Dr. C. C. Weger, Keytesville; Dr. Josephine D. Baker, Dr. W. D. Chute, Dr. C. C. Cohrs, Dr. Will Fleming, Dr. Tom Fleming, Dr. L. E. Huber, Dr. Avery P. Rowlette, Dr. C. C. Smith, Dr. S. R. Szymanski and Dr. Robert H. Young, Moberly.

Guests present were Dr. Statland, Mr. Green and Dr. R. P. Price, Brunswick.

Robert Young, M.D., *Secretary*

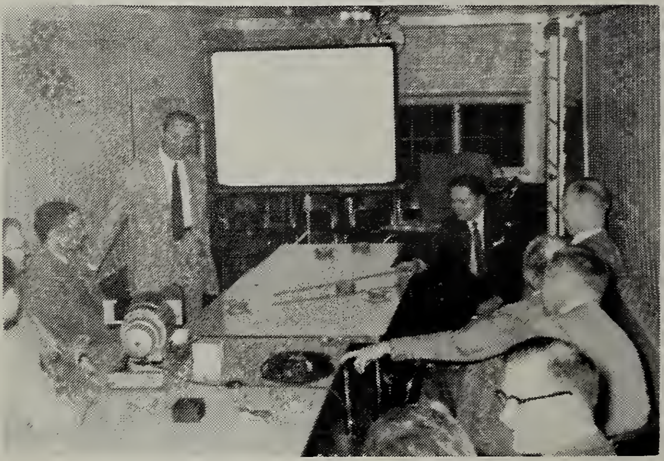
FOURTH COUNCILOR DISTRICT

JOSEPH C. CREECH, TROY, COUNCILOR

Lincoln-St. Charles County Medical Society

A dinner meeting of the Lincoln-St. Charles County Medical Society was held at the Southern Air, Wentzville, Thursday evening, May 17.

Close attention was paid to the presentation.



Informal discussion followed the talk.

A social hour preceded dinner and the official program. The scientific talk of the evening was given by Dr. William A. Knight, Jr., St. Louis, who spoke on "The Management of Massive Gastrointestinal Hemorrhage." A lively question and answer period followed his formal presentation.

A number of Society business matters were brought forth and discussed after completion of the scientific program.

Sixteen doctors attended the meeting.

W. H. Poggemeier, M.D., *Secretary*

St. Louis County Medical Society

The Annual Spring Party of the St. Louis County Medical Society was held at Le Chateau Restaurant, 10405 Clayton Road, Wednesday evening, May 23.

The evening festivities began with a social hour at 7:00 p.m. followed by a delightful dinner at 8:00 p.m. Those attending were seated at tables of ten. A beautiful vase of flowers decorated each table. An unusu-

Officers and honored guests were seated at the speakers' table.

The dinner meeting was well attended.

The evening enjoyable.

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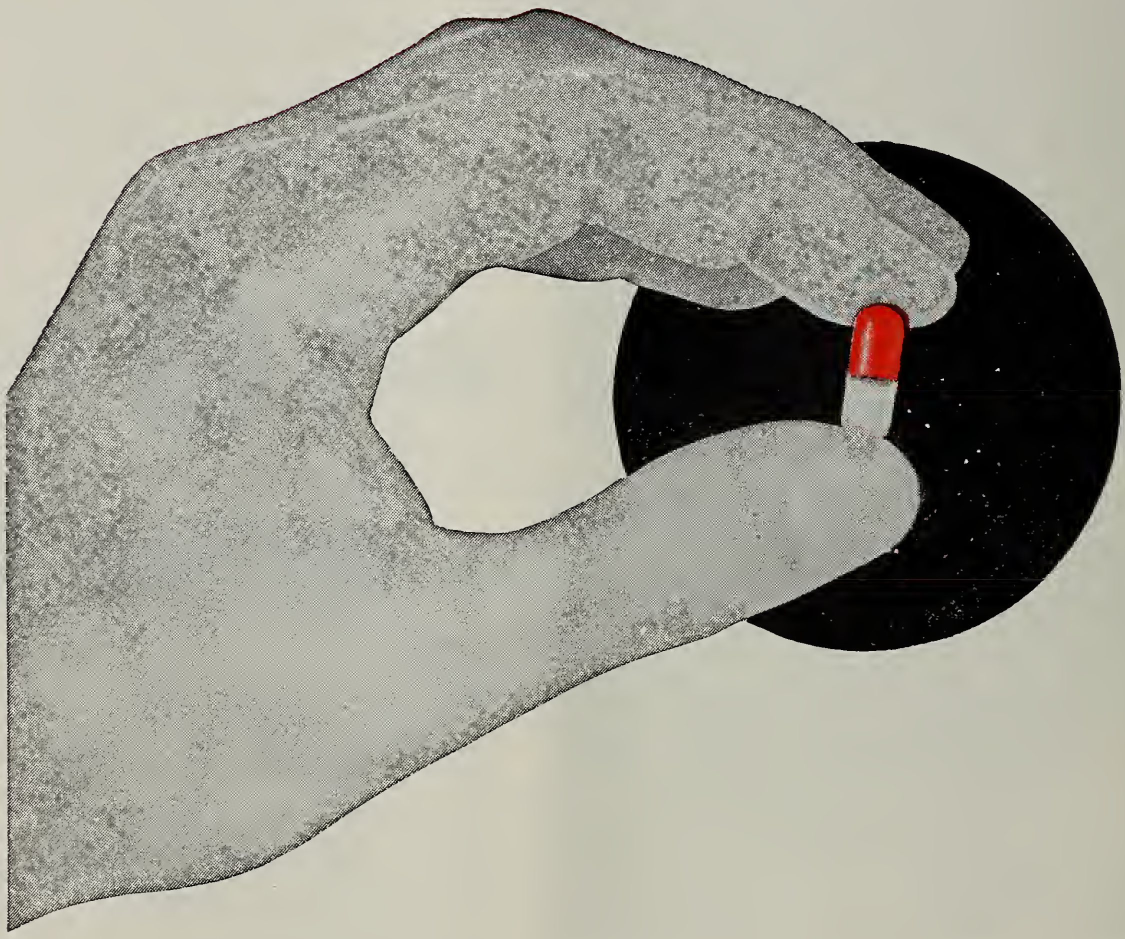

TODAY'S resistant pathogens are the tough survivors of a dozen widely-used antibiotics. Certain organisms, notably *Staphylococcus aureus*[4] and susceptible strains of *Proteus vulgaris*, produce infections which have been resistant to *all* clinically useful antibiotics.

To augment your armamentarium against these resistant infections, 'Cathomycin' (Novobiocin, Merck), derived from an organism recently discovered and isolated in the Merck Sharp & Dohme Research Laboratories,[1] is now available.

SPECTRUM—'Cathomycin' [1,2,3,5,6] has also been shown to be active against other organisms including—*D. pneumoniae*, *N. intracellularis*, *S. pyogenes*, *S. viridans* and *H. pertussis*, but clinical evidence must be further evaluated before 'Cathomycin' can be recommended for these pathogens.

ACTION—'Cathomycin' in optimum concentration is bactericidal. Cross-resistance with other antibiotics has not been observed.[7]

TOLERANCE—'Cathomycin' is generally well tolerated by most patients. [5,6,8,9,10,11]

'CATHOMYCIN'

(Crystalline Sodium Novobiocin, Merck)

SODIUM

ABSORPTION—'Cathomycin' is readily absorbed, [5,6,9] and oral dosage produces significant blood and tissue levels which persist for at least 12 hours.[7]

INDICATIONS: Clinically 'Cathomycin' has proved effective for cellulitis, carbuncles, skin abscesses, wounds, felons, paronychiae, varicose ulcer, pyogenic dermatoses, septicemia, bacteremia, pneumonia and enteritis due to *Staphylococcus* and infections caused by susceptible strains of *Proteus vulgaris*.[6,7,8,9,10,11,12,13,14] Also, it is of particular value as an adjunct in surgery since staphylococcic infections seem prone to complicate postoperative courses.

DOSAGE: Four capsules (one gram) initially and then two capsules (500 mg.) twice daily.

SUPPLIED: 'Cathomycin' Sodium (Crystalline Sodium Novobiocin, Merck) in capsules of 250 mg., bottles of 16.

'CATHOMYCIN' *is a trademark of Merck & Co., Inc.*

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ally attractive display of red roses, compliments of the Pevely Dairy Company, decorated the head table.

Numerous guests were introduced, among them Dr. and Mrs. Carl Vohs, St. Louis. It was a real pleasure and privilege to have Dr. Carl Vohs, President of the State Medical Association, back with us again following his recent illness. After introducing the guests of the evening, Dr. James F. Dowd, President of the Society, presented the guest speaker of the evening, Captain Joseph Gallagher of the St. Louis Police Department, who discussed "Communism and Its Subversive Activities." This was an extremely interesting and informative talk.

Following the dinner, Mr. Singleton Palmer and his Dixieland Band, recently featured on St. Louis television stations, provided just the right music for dancing.

Seventy-five persons were in attendance to enjoy this gala occasion.

George Wulff, Jr., M.D., *Secretary*

FIFTH COUNCILOR DISTRICT

J. W. ALLEE, COLUMBIA, COUNCILOR

Audrain County Medical Society

The Audrain County Medical Society held their regular monthly meeting on May 10 in the cafeteria of the Audrain County Hospital at 7:30 p.m.

The meeting was called to order by the President, Dr. Glen Kallenbach. The minutes and treasurer's report of the previous meeting were read and approved.

Dr. Ernest Gantt introduced Mr. Robert L. Scott who discussed the proposed County Heart Program.

Dr. William R. Platt conducted a scientific discussion on laboratory procedures and their clinical indications.

The following doctors were present: Leonard L. Davis, M.D., Kathryn C. Epple, M.D., Lawrence K. Epple, M.D., Ernest S. Gantt, M.D., J. Frank Jolley, M.D., Benjamin N. Jolly, M.D., William H. Jolly, M.D., Glen P. Kallenbach, M.D., Harold K. Lankford, M.D., Harry F. O'Brien, M.D., Charles M. Waggoner, M.D., Ed S. Wallace, M.D., and Mr. Keyton Nixon, Administrator of Audrain County Hospital.

As there was no further business, the meeting adjourned at 10:00 p.m.

Ed S. Wallace, M.D., *Secretary*

Postgraduate Course at Missouri University

The final postgraduate meeting in the series of six held at the University of Missouri Medical School throughout the fall and winter months of 1955 and 1956 was held Thursday night, May 17.

These meetings have been promoted under the joint sponsorship of the Missouri Academy of General Practice and the Medical School at the University of Missouri.

Each session has presented two speakers of the Medical School Faculty who have presented lectures on subjects selected from a list of subjects presented by the Educational Committee of the Missouri Academy of General Practice.

Category I postgraduate credit toward Academy membership in the amount of two hours per session may be taken by those Academy members who have been in attendance. A total of twelve hours for the six sessions may be counted.

Even though the attendance at some of the meetings has not been all that could be desired, the discussions have been well received by those who have attended.

The program for the May 17 session was presented by Dr. Horace Thomas who spoke on "Present Concepts in the Treatment of Gallbladder Disease," and Dr. Frederick E. Simpson who discussed "Acute Poisoning in Children."

Dr. W. J. Shaw, Fayette, Chairman of the Educational Committee of the Missouri Academy of General Practice, presided at the final session of the 1956 spring series.

J. W. Allee, M.D., *Councilor*

SIXTH COUNCILOR DISTRICT

C. G. STAUFFACHER, SEDALIA, COUNCILOR

Henry, Johnson, Pettis, Saline and the Lafayette-Ray County Medical Societies

Sixty-two people, including doctors, their wives and guests, attended a joint dinner meeting of the Henry, Johnson, Pettis, Saline and the Lafayette-Ray County Medical Societies Tuesday night, May 15, at Riggles Cafe in Warrensburg.

The evening festivities began with an enjoyable social hour, a steak dinner and then the program. The doctors were treated to an interesting and informative

Members and guests visited between dinner and the talk.

Discussions continued after the meeting.

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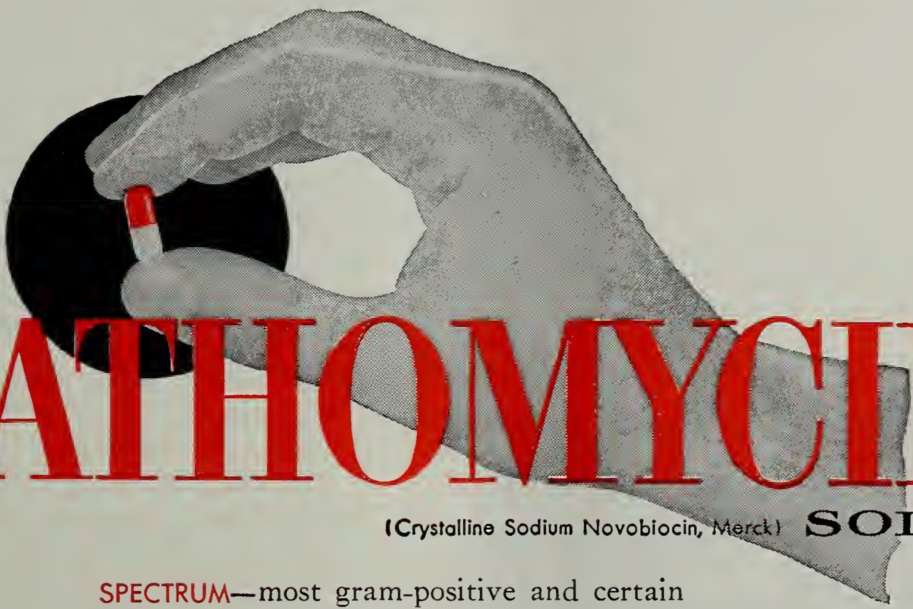

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SPECTRUM—most gram-positive and certain gram-negative pathogens.

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ABSORPTION—oral administration produces high and easily-maintained blood levels.

INDICATIONS—cellulitis, pyogenic dermatoses, septicemia, bacteremia, pneumonia and enteritis due to *Staphylococcus* and infections involving certain strains of *Proteus vulgaris*, including strains resistant to all other antibiotics.

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discussion on "Office Female Urology" by Dr. Thomas E. McMillan, urologist of Kansas City.

The doctors' wives held a separate meeting following dinner and were privileged to hear a talk on interior decorating entitled "What's New in Spring Fabrics?" by Mrs. John Baumann, Warrensburg.

A number of local representatives of pharmaceutical companies were guests at the meeting. The next scheduled meeting of the group will be sponsored by the Saline County Medical Society and is tentatively set for Wednesday evening, September 19.

Ray Hollingsworth, M.D.,
Chairman for the meeting

NINTH COUNCILOR DISTRICT

J. H. SUMMERS, LEBANON, COUNCILOR

Mid-Missouri Medical Society

Thirty-seven persons, including physicians, their wives and guests, attended a dinner meeting of the Mid-Missouri Medical Society in the Pine Room of the Greyhound Bus Station, Rolla, Thursday night, May 24.

The scientific program of the evening was furnished by the Missouri Academy of General Practice in cooperation with St. Louis University Medical School. It consisted of a panel discussion entitled "Bedside Diagnosis and Treatment of the Arrhythmias." The discussants were Drs. Robert Potashnich, J. F. G. Mudd and Donald W. Bussman, St. Louis. Interest was added to this program by the frequent comments and questions from members of the audience during the panel presentation.

Speakers were thanked for the program presented.

Members in attendance of the Missouri Academy of General Practice are entitled to two hours Category I postgraduate credit from this meeting.

M. K. Underwood, M.D., *Secretary*

South Central Counties Medical Society

The South Central Counties Medical Society met for dinner Wednesday night, May 23, at Tiny's Cafe in Cabool with the following members and visitors present: Dr. and Mrs. Garrett Hogg, Jr., and Dr. and Mrs. J. L. Spears, Cabool; Dr. and Mrs. R. W. Denney and Dr. A. C. Ames, Mountain Grove; Dr. and Mrs. M. L. Fowler, Dr. and Mrs. C. F. Callihan, Dr. and Mrs. L. E. Walker, Dr. J. N. Wiles, West Plains; Dr. and Mrs. H. W. Miller, Willow Springs; Dr. and Mrs. J. B. Kelly and Dr. T. J. Burns, Houston; Dr. and Mrs. C. W. Cooper, Thayer; Dr. D. E. Tiffany, Mountain View; Dr. M. D. Bonebrake and Dr. W. S. Sewell, Springfield; Dr. A. T. Walker, Mammoth Springs, Arkansas, and Charles Thompson, West Plains who is graduating from medical college.

After dinner the ladies went home with Mrs. Hogg for the evening and Dr. Wiles, the president, called the meeting to order, and the minutes of the last meeting were read and approved; then, Dr. Bonebrake spoke and showed films on the detection of uterine cancer.

This program was greatly appreciated.

A. C. Ames, M.D., *Secretary*

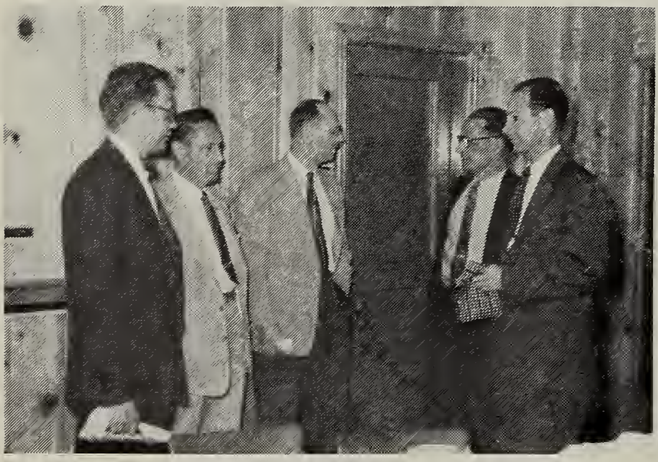
TENTH COUNCILOR DISTRICT

BEN M. BULL, IRONTON, COUNCILOR

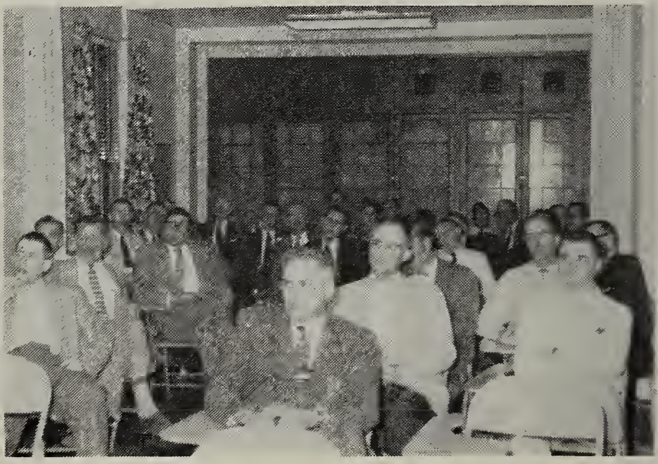
More than forty doctors attended the medical meeting at the St. Francis Hospital Staff Room in Cape Girardeau, Wednesday night, May 9, to hear talks by Dr. Roscoe L. Pullen, Dean of the Medical School, University of Missouri, and Dr. Thomas W. Burns, Assistant Professor of Medicine at the University.

This postgraduate session was sponsored by the Southeast Missouri Chapter of the Missouri Academy of General Practice.

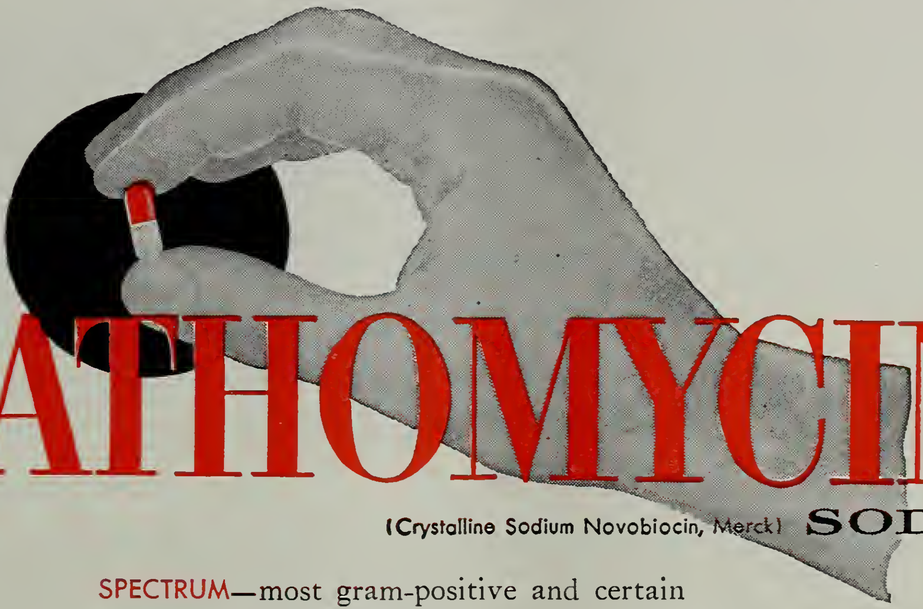
In addition to physicians from Cape Girardeau County, there was a good number present from the surrounding county medical societies.



The meeting broke up slowly.



The audience was attentive.



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Members visited following the formal meeting.

Dinner preceded the meeting.

About twenty attended the meeting.

Dr. Pullen showed numerous slides giving a progressive view of the construction of the new Medical Center at the University of Missouri in Columbia. He also discussed the acquisition of the Medical School faculty, the present patient load and teaching program and some of the plans for the operation of the new Four-Year Medical School as it gets into full swing with its first senior medical class this fall. He briefly discussed plans for the beginning of a preceptorship program with the senior class of twenty-three students with the contemplated beginning of such a program in June 1956.

Seventy-five medical students have been accepted for admission into the freshman class this fall at the University. Various questions were asked Dr. Pullen by members of the audience which elicited considerable information which many of the doctors present secured for the first time.

Dr. Burns gave an interesting discussion on the subject "The Use and Abuse of Thyroid and Antithyroid Agents."

Ben M. Bull, M.D., *Councilor*

Dunklin, Pemiscot, Butler-Ripley-Wayne County Medical Societies

A joint dinner meeting of the Dunklin, Pemiscot, Butler-Ripley-Wayne County Medical Societies was held at the Cotton Boll Hotel in Kennett, Thursday night, May 10.

The evening festivities began with a social hour followed by dinner and an interesting program.

The twenty some doctors present were privileged to hear discussions by Dr. Roscoe L. Pullen, Dean, University of Missouri Medical School, and Dr. Thomas W. Burns, Assistant Professor of Medicine, University of Missouri. Dr. Pullen spoke on "Your Four-Year Medical School at the University of Missouri." He discussed the building program, some of the difficulties being encountered in getting the new four-year school under way, along with plans of beginning operation in the new Medical School Center this fall. Dr. Burns discussed "The Use and Abuse of Thyroid and Antithyroid Agents."

It was a pleasure to have Drs. Pullen and Burns present this particular program to the doctors in the deep southeast section of Missouri.

E. L. Spence, M.D., *Secretary*

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The Importance of Rescinnamine in

Rauwiloid®

The Original Alseroxylon Fraction of India-Grown Rauwolfia Serpentina, Benth.

The isolation of rescinnamine,[1] another potent alkaloid in Rauwolfia serpentina, has substantiated two important points:

A—It discredits the erroneous opinion that reserpine is *the* sole active principle of Rauwolfia;[2]

B—It helps to define the advantages of Rauwiloid, the alseroxylon fraction of Rauwolfia serpentina, which presents desirable alkaloids[3] of the Rauwolfia plant (among them reserpine and rescinnamine) but is freed from undesirable alkaloids and the dross of the crude root.

Pharmacologic and clinical evaluation has shown rescinnamine to be similar to reserpine in antihypertensive activity, but to be considerably less sedative and much less apt to lead to lethargy and mental depression.[4, 5]

The interaction of reserpine, rescinnamine, and other contained alkaloids may well account for the balanced and desirable clinical behavior of Rauwiloid.

The dosage of Rauwiloid is simple and definite: Merely two 2 mg. tablets at bedtime. For maintenance, one tablet usually suffices.

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LOS ANGELES

Quoting the Press

U. S. Should Follow Britain on Aiding Self-Employed

The Bureau of Medical Economic Research of the American Medical Association has reproduced the following article from the *New York Journal-American,* written by Leslie Gould, financial editor.

"The British have just taken a significant step toward ending the discrimination against the self-employed for their old age.

"The move, included in the new British budget, is important for its possible effect on similar efforts in this country to end this discrimination.

"There are more than 10 million self-employed in the U. S. These include farmers, doctors, lawyers, accountants, brokers, engineers, salesmen and funeral directors.

"Under present tax laws they are denied a tax credit or deduction for contributions to specified private pension funds.

"There is a bill before the House—it passed the Ways and Means Committee by a 16 to 8 vote last year—to accord the self-employed the same treatment as now granted employees. Employees include officers of a corporation. Also employees of a partnership—such as a law or accounting firm or of any professional person. But the partners in such a firm or individual professional people and the farmers and salesmen are now denied this treatment.

PRESENT LAW UNFAIR

"This is unfair. It is discrimination never intended under the Constitution. But to date, the matter has been kicked around in Congress, getting nowhere until this present House bill.

"One of the troubles is that no Administration has sponsored this needed change. That includes the present Eisenhower one. The British development may help change that 'hands off' stand. Also, it looks like the Treasury will wind up the current year with a surplus, maybe as much as $2 billion—so the Treasury no longer has its pat argument of being against it for its effect on the budget. Regardless of its effect on the budget, the present tax law is discriminatory and it should be changed.

"The British Government's proposals go far beyond the relief provided in the present House bill. The same tax break as granted corporation workers is to be accorded the British self-employed. Cost of annuities would be deductible, thus reducing the taxable net income.

RELIEF EXTENDED

"This relief is to be extended by Britain to employees now covered by their employer, whether the employer's a corporation or not.

"This is part of the just announced British anti-inflation program. It is designed to encourage saving, which is what contributions to a pension plan are.

"Under present American tax laws, the self-employed can only provide for his old age out of net income—that is after the high income taxes. And the taxes are high no matter what the bracket.

"The proposal is so fair and equitable, that it is amazing that there should be any delays in providing this relief. It is in keeping with the basic American philosophy of private endeavor."

To Aid Self-Employed

The Bureau reproduced the following article from the column, "As We See It—" from the *Chicago Daily News.*

"The prospect of a small surplus in the federal budget has encouraged one group that is able to make a strong case for a particular tax deduction. Their proposal is to allow some tax exemption on money which self-employed persons invest in a pension fund to provide for their own future.

"The equity of this idea, as embodied in the Jenkins-Keough bills now before Congress, is that salaried persons do, in effect, already have such a tax exemption. Money paid by an employer into workers' pension funds is a cost of doing business, and is nontaxable either to employer or employee. It becomes taxable only when received as a pension.

"Lawyers, physicians and many other professional and self-employed persons pay the entire premium for their annuities, and contend with justice that they should have some of the tax consideration that an employed person receives.

"Great Britain's new budget makes such a provision. President Eisenhower, in his 1952 campaign, endorsed the idea. The time would seem to be ripe."

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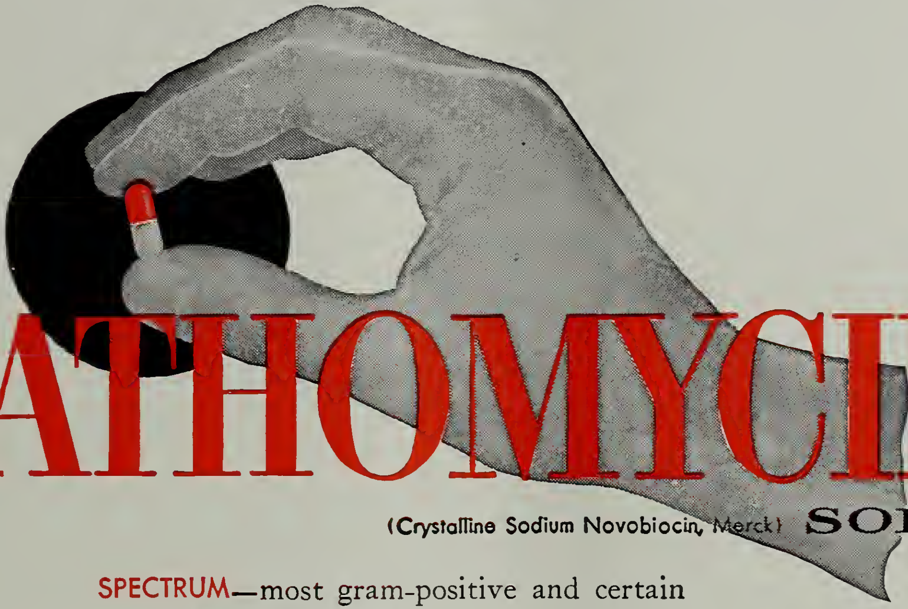

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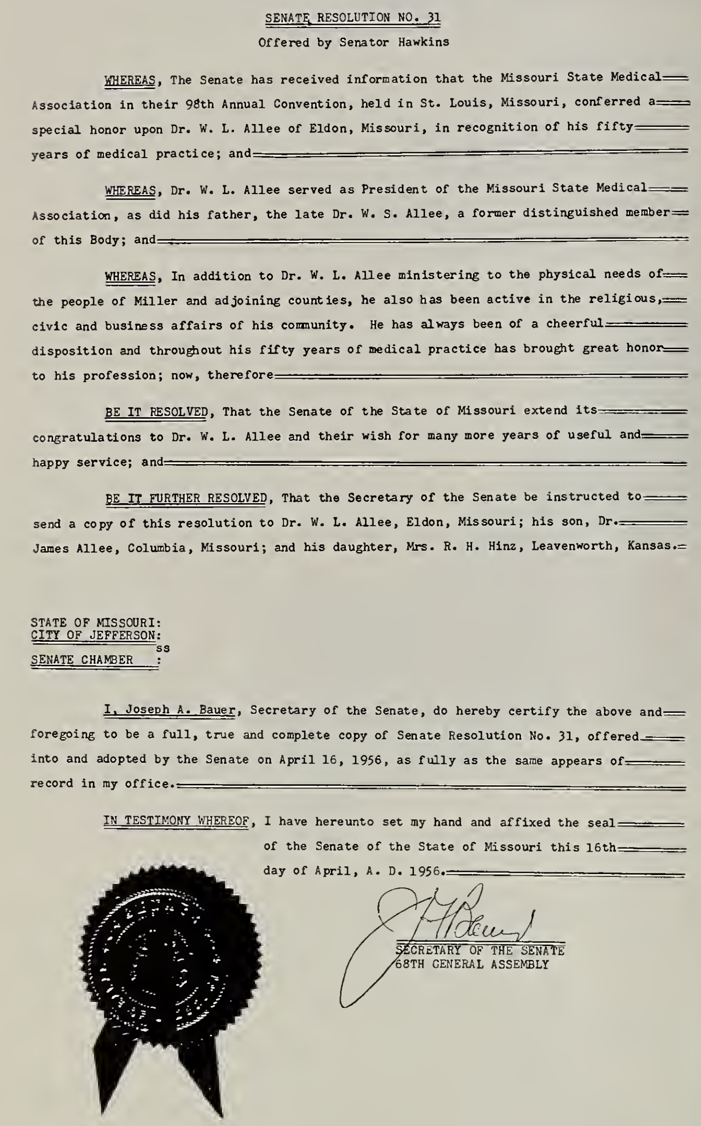
MISSOURI SENATE HONORS DRS. McCOMAS AND ALLEE

The Missouri Senate, while convened this spring in special session to allocate the state bond funds, nevertheless, took time to honor two distinguished members of the Missouri State Medical Association.

Senate Resolution 31, conferring honors on W. Logan Allee, M.D., Eldon, was introduced in the Senate by Senator C. R. Hawkins, Brumley, on April 16, 1956, and was approved unanimously.

Senate Resolution 33, conferring honors on Arthur R. McComas, M.D., Sturgeon, was introduced in the Senate jointly by Senators George A. Spencer, Columbia, and Michael Kinney, St. Louis, on April 17, 1956, and was approved unanimously.



SENATE RESOLUTION NO. 31

Offered by Senator Hawkins

WHEREAS, The Senate has received information that the Missouri State Medical Association in their 98th Annual Convention, held in St. Louis, Missouri, conferred a special honor upon Dr. W. L. Allee of Eldon, Missouri, in recognition of his fifty years of medical practice; and

WHEREAS, Dr. W. L. Allee served as President of the Missouri State Medical Association, as did his father, the late Dr. W. S. Allee, a former distinguished member of this Body; and

WHEREAS, In addition to Dr. W. L. Allee ministering to the physical needs of the people of Miller and adjoining counties, he also has been active in the religious, civic and business affairs of his community. He has always been of a cheerful disposition and throughout his fifty years of medical practice has brought great honor to his profession; now, therefore

BE IT RESOLVED, That the Senate of the State of Missouri extend its congratulations to Dr. W. L. Allee and their wish for many more years of useful and happy service; and

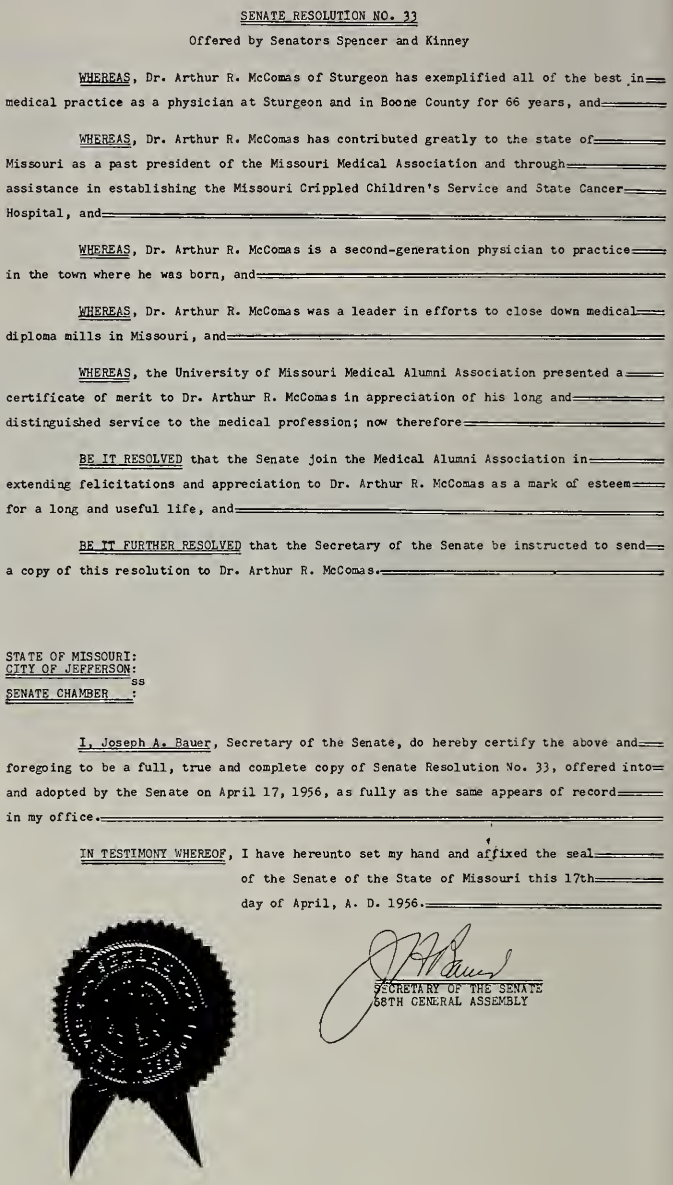
BE IT FURTHER RESOLVED, That the Secretary of the Senate be instructed to send a copy of this resolution to Dr. W. L. Allee, Eldon, Missouri; his son, Dr. James Allee, Columbia, Missouri; and his daughter, Mrs. R. H. Hinz, Leavenworth, Kansas.

STATE OF MISSOURI:
CITY OF JEFFERSON: ss
SENATE CHAMBER :

I, Joseph A. Bauer, Secretary of the Senate, do hereby certify the above and foregoing to be a full, true and complete copy of Senate Resolution No. 31, offered into and adopted by the Senate on April 16, 1956, as fully as the same appears of record in my office.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seal of the Senate of the State of Missouri this 16th day of April, A. D. 1956.

SECRETARY OF THE SENATE
68TH GENERAL ASSEMBLY



SENATE RESOLUTION NO. 33

Offered by Senators Spencer and Kinney

WHEREAS, Dr. Arthur R. McComas of Sturgeon has exemplified all of the best in medical practice as a physician at Sturgeon and in Boone County for 66 years, and

WHEREAS, Dr. Arthur R. McComas has contributed greatly to the state of Missouri as a past president of the Missouri Medical Association and through assistance in establishing the Missouri Crippled Children's Service and State Cancer Hospital, and

WHEREAS, Dr. Arthur R. McComas is a second-generation physician to practice in the town where he was born, and

WHEREAS, Dr. Arthur R. McComas was a leader in efforts to close down medical diploma mills in Missouri, and

WHEREAS, the University of Missouri Medical Alumni Association presented a certificate of merit to Dr. Arthur R. McComas in appreciation of his long and distinguished service to the medical profession; now therefore

BE IT RESOLVED that the Senate join the Medical Alumni Association in extending felicitations and appreciation to Dr. Arthur R. McComas as a mark of esteem for a long and useful life, and

BE IT FURTHER RESOLVED that the Secretary of the Senate be instructed to send a copy of this resolution to Dr. Arthur R. McComas.

STATE OF MISSOURI:
CITY OF JEFFERSON: ss
SENATE CHAMBER :

I, Joseph A. Bauer, Secretary of the Senate, do hereby certify the above and foregoing to be a full, true and complete copy of Senate Resolution No. 33, offered into and adopted by the Senate on April 17, 1956, as fully as the same appears of record in my office.

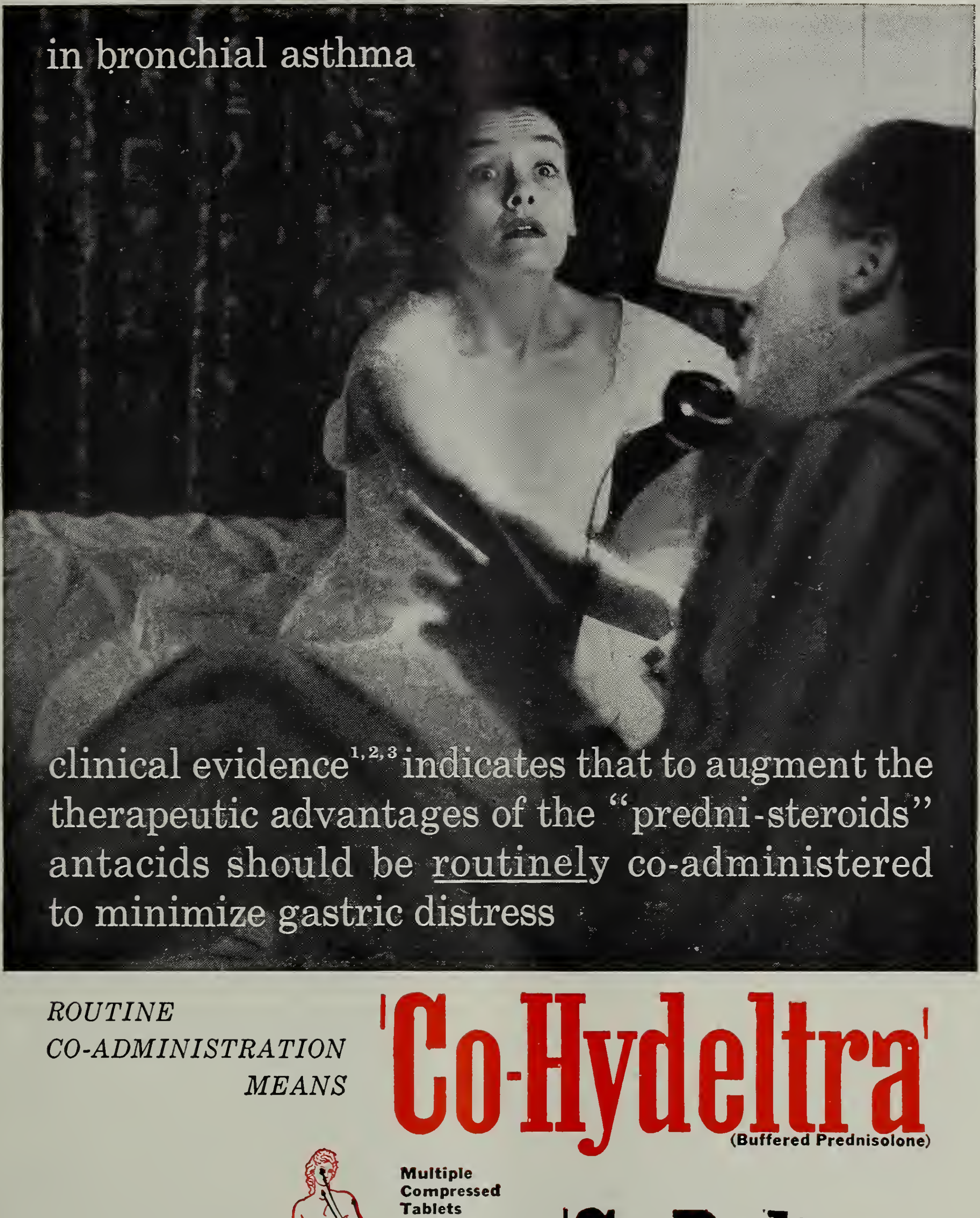
IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seal of the Senate of the State of Missouri this 17th day of April, A. D. 1956.

SECRETARY OF THE SENATE
68TH GENERAL ASSEMBLY

SECOND GROUPS OF HOSPITALS RECEIVE FORD FOUNDATION MONEY

Missouri hospitals were among the 1,000 hospitals which received checks totalling $31,072,150 in the second group named by the Ford Foundation. Of this amount, the Missouri hospitals received $1,101,200.

The hospitals in this second group are the St. Joseph Hospital, Boonville, $16,500; St. Francis Hospital, Cape Girardeau, $29,400; Stephens College Health Center, Columbia, $14,450; Excelsior Springs Hospital, Excelsior Springs, $10,400; George Dimmitt Memorial Hospital, Humansville, $5,000; Arcadia Valley Hospital, Ironton, $10,550; St. Mary's Hospital, Jefferson City, $32,800; Lockwood Memorial Hospital, Lockwood, $5,000; Evangelical Emmaus Homes for Epileptics and Feeble-Minded, Marthasville, $24,100; Evangelical Emmaus Homes for Epileptics and Feeble-Minded, St. Charles, $42,450; in St. Joseph, Missouri Methodist Hospital, $55,500, and St. Joseph's Hospital, $39,850; in Kansas City, St. Luke's Hospital, $117,600, St. Mary's Hospital, $83,700, and Wheatley-Provident Hospital, $11,300; in St. Louis, Bethesda General Hospital, $15,850; Evangelical Deaconess Home and Hospital, $76,750; Faith Hospital, $20,650; Incarnate Word Hospital, $33,100; Jewish Hospital, $114,100; Marian Hospital, $6,000; St. Anthony's Hospital, $73,750; St. John's Hospital, $101,650, and St. Vincent's Hospital, $65,650; Missouri Delta Community Hospital, Sikeston, $15,250; St. John's Hospital, Springfield, $51,600; St. Francis Hospital, Washington, $28,250.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clinical evidence[1,2,3] indicates that to augment the therapeutic advantages of the "predni-steroids" antacids should be routinely co-administered to minimize gastric distress

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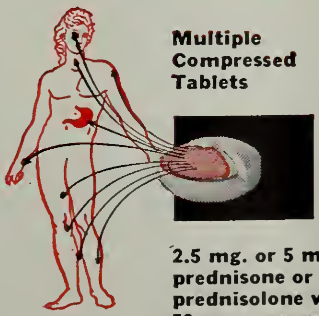

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References: 1. Boland, E. W., *J.A.M.A.* 160:613, (February 25,) 1956. 2. Margolis, H. M. *et al*, *J.A.M.A.* 158:454, (June 11,) 1955. 3. Bollet, A. J. *et al*, *J.A.M.A.* 158:459, (June 11,) 1955.

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Federal Legislation of Medical Interest

Cost and Eligibility Under Dependent Care Program

The new military dependent medical care plan—recently signed by the President—makes medical care a statutory right, defines dependents and provides uniform benefits for Army, Navy, Air Force, Marine Corps, Coast Guard and Commissioned Corps of Coast and Geodetic Survey and U. S. Public Health Service. This protection for dependents is designed to make military careers more attractive and thus help to reduce personnel turnover.

All dependents may be treated in military facilities "subject to availability of space, facilities, and capabilities of staff," with the medical officer in charge making the conclusive determination as to whether the particular facility is able to handle the particular dependent. (Definition of dependents is given later.)

Only spouses and children of active duty personnel are eligible for medical care from private physicians and in private facilities "under such insurance, medical service or health plan or plans" as the Secretary of Defense may contract for, after consulting Secretary of Health, Education, and Welfare.

Freedom of choice for spouses and children between military and private facilities is restricted by the following provision: The Secretary of Defense may limit or prohibit the use of private facilities in any area where in his opinion military facilities are adequate to care for the service families.

Other beneficiaries, all restricted to care in military facilities on a "space available" basis, include parents and parents-in-law residing in the home of the service member and for whom he pays at least half the support, retired members and dependents and dependents of persons who died on active duty or retired. Limitation: Regardless of age, non-career retired reserves (Title III) with less than eight years' active service and dependents not eligible.

Charges to Dependents: While in military facilities, dependents will pay subsistence and in-hospital charges (currently totaling $1.75 per day); as a restraint on excessive demands, "uniform, minimal" charges may be made for outpatient care in military facilities. In private facilities, the charges will be at the same rate or the first $25, whichever is the larger. All other medical care costs will be met by the federal government, through absorption of charges in military facilities and payment for insurance or other costs in private facilities. The Bureau of the Budget has approved $76 million to meet the first year's costs of private care; no estimate has been announced of the cost of the program in military facilities. The Secretary of Defense will establish the subsistence and in-hospital charges, described in the bill as "fair charges."

Administration: Secretary of Defense to administer for Army, Navy, Air Force, and Marine Corps and Coast Guard when it is a part of the Navy; Secretary of Health, Education, and Welfare to administer for Coast and Geodetic Survey and Public Health Service, and the Coast Guard when not a part of the Navy. In writing regulations, etc., except those applying only to the military, the Secretary of Defense required to consult the Secretary of Health, Education, and Welfare. Secretary of Defense authorized to set up advisory committees on insurance, medical service, and health plans.

Benefits Provided by Program in Military and in Civilian Facilities

(Only spouses and children of active-duty personnel eligible for private care.)

I

Military Medical Facilities Will Provide:

1. Diagnosis, treatment of acute medical and surgical conditions, treatment of "contagious diseases," immunization and maternity and infant care.
2. Hospitalization for nervous and mental disorders, chronic diseases or elective medical and surgical treatments but only in "special and unusual cases" and for not more than 12 months. This would be provided at the discretion of the Secretary of Defense.

Military Facilities Will Not Provide:

1. Domiciliary care.
2. Prosthetic devices, hearing aids, orthopedic footwear and spectacles, ambulance service (except in acute emergency), home calls (except in special cases where medically necessary) or dental care.

Exceptions: Dental care authorized as necessary adjunct to medical or surgical treatment or to relieve pain and suffering but not to include any permanent restorative work or dental prosthesis. Also, outside the U. S. and at remote stations in the U. S. where private facilities are not available, dependents eligible for dental care and—at cost—prosthetic devices, hearing aids, orthopedic footwear and spectacles.

II

The Private Care Program Will Provide:

1. Hospitalization in semiprivate accommodations up to one year for each admission, including all necessary services and supplies furnished by hospital.
2. Medical and surgical care incident to hospitalization.
3. Complete obstetrical and maternity service, including prenatal and postnatal care.
4. Physician or surgeon's services prior to and following hospitalization for bodily injury or surgery.
5. Diagnostic tests and procedures, including laboratory and x-ray examinations accomplished or recommended by the physician incident to hospitalization.

Note: Also included under private care may be surgery in a physician's office, x-rays or laboratory tests outside the hospitals, but not "what is normally conceived to be outpatient care." "Reasonable" limitations, additions, exclusions and definitions could be authorized by the Secretary of Defense. Scope of private care may not exceed that furnished in military facilities. If hospitalization is required beyond one year, patients may be transferred to military facilities, or the federal government will assume cost in private facility.

From Special Report 84-22, May 29, 1956, American Medical Association Washington Office.

How Act Defines Military Dependents Entitled to Medical Care

(Private care restricted to spouses and children of members on active duty.)

The term "dependent" means any person who bears to a member or retired member of a uniformed service, or to a person who died while a member or retired member of a uniformed service, any of the following relationships:

(a) the lawful wife:

(b) the unremarried widow;

(c) the lawful husband, if he is in fact dependent on the member or retired member for over one half of his support;

(d) the unremarried widower, if he was in fact dependent upon the member or retired member at the time of her death for over one half of his support because of a mental or physical incapacity;

(e) an unmarried legitimate child (including an adopted child or stepchild), if such child has not passed his twenty-first birthday;

(f) a parent or parent-in-law, if the said parent or parent-in-law is, or was at the time of the member's or retired member's death, in fact dependent on the said member or retired member for over one half of his support and is, or was at the time of the member's or retired member's death, actually residing in the household of the said member or retired member; or

(g) an unmarried legitimate child (including an adopted child or stepchild) who (i) has passed his twenty-first birthday, if the child is incapable of self-support because of a mental or physical incapacity that existed prior to his reaching the age of twenty-one and is, or was at the time of the member's or retired member's death, in fact dependent on him for over one half of his support, or (ii) has not passed his twenty-third birthday and is enrolled in a full-time course of study in an institution of higher learning as approved by the Secretary of Defense or the Secretary of Health, Education, and Welfare and is, or was at the time of the member's or the retired member's death, in fact dependent on him for over one half of his support.

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From the Medical Schools

UNIVERSITY OF MISSOURI

Trips and Talks

On April 22 Dean Roscoe L. Pullen attended a meeting of the Committee on Medical Education and Hospitals, Missouri State Medical Association, in Jefferson City, pertaining to the preceptorship program for senior medical students, which was instituted at the University of Missouri School of Medicine in June. Dean Pullen also spoke to the Saline County Medical Society at a dinner meeting at Arrow Rock Tavern, on the subject "Developments of the University of Missouri Medical School and University Hospital" on April 25. At the dedication exercises on April 29 at Burge Hospital, Springfield, Dean Pullen spoke on the subject, "What the Hospital Means to the Community." On May 9, Dr. Pullen was one of the speakers at a postgraduate educational meeting of the Southeast Chapter of the Missouri Academy of General Practice, Cape Girardeau, sponsored by the University of Missouri School of Medicine and the Missouri Academy of General Practice. Dean Pullen's topic was "The New Four-Year Medical School at the University of Missouri." The meeting was held at the St. Francis Hospital at Cape Girardeau. On May 10 Dean Pullen attended a dinner meeting of the Southeast Missouri County Medical Societies in Kennett and spoke on the topic "Your Four-Year Medical School at the University of Missouri." This program also was sponsored by the Missouri Academy of General Practice. At the Ministerial Alliance at the Methodist Church, May 2, in Columbia, Dean Pullen gave a talk on the "Development of Religious Education at the Hospital." On May 21 at the Appreciation Dinner at Harwell Manor given by the sophomore class Dean Pullen spoke briefly on "Developments of the University of Missouri Medical Center." At the Institute of Teamwork in the State Hospital sponsored by Adult Education and Extension Service on June 4 at the Student Union Building on the University Campus, greetings were given by Dean Pullen.

Dr. Lloyd E. Thomas, associate professor of biochemistry, Dr. Owen J. Koeppe, assistant professor of biochemistry, Dr. John M. Franz, instructor in biochemistry, Dr. Hiroo Yamamoto and Dr. John Smith, research associates in the Department of Biochemistry, all attended the Federation of American Societies for Experimental Biology on May 18 in Atlantic City, New Jersey.

Dr. W. A. Sodeman, professor and chairman of the Department of Medicine, attended a meeting of the American College of Physicians in Los Angeles on April 15-19 and conducted a panel while there. Dr. Sodeman also attended a meeting of the Missouri Heart Association in Columbia on May 20 where he gave a talk on "The University of Missouri School of Medicine and Teaching Hospital." On May 24, Dr. Sodeman spoke to the St. Louis Internists' Club in St. Louis on "Amebic Disease and the Liver." Dr. Sodeman also made a trip to Memphis, Tennessee, to the Kennedy VA Hospital on May 29 where he delivered a talk on "Digitalis Therapy." Dr. John H. Killough, associate professor of medicine, also attended the meeting of the American College of Physicians in Los Angeles in April. On April 29, Dr. Killough spoke on "Differential Diagnosis of Cardiac and Pulmonary Disease," at the Trudeau Society meeting in Mount Vernon. Dr. T. W. Burns, assistant professor of medicine, attended a postgraduate educational meeting of the Southeast Missouri Chapter of the Missouri Academy of General Practice in Cape Girardeau on May 9. Dr. Burns also attended a dinner meeting of the Southeast Missouri County Medical Societies in Kennett on May 10. On May 25, Dr. Burns spoke on "Some Recent Advances in Rheumatic Heart Disease" at the Cooper County Heart Association annual dinner meeting in Boonville. Dr. Burns also traveled to Chicago where he attended a Department of Medicine, University of Illinois, meeting at the Presbyterian Hospital.

Dr. Frank B. Engley, Jr., professor and chairman of the Department of Microbiology, attended the national meeting of the Chemical Specialties Manufacturers Association in Chicago on May 21 and presented a paper on the "Evaluation of Mercurial Antimicrobial Action and Comparative Toxicity." Dr. Engley also traveled to St. Louis to attend the American Public Health Association committee meeting on Evaluation of Antimicrobial Agents on June 18. June 20 to June 23, Dr. Engley acted as consultant at the VA Center in Temple, Texas, and the Burn Research Group, Brooke Army Hospital, Fort Sam Houston in San Antonio, Texas. Dr. Engley, along with Dr. Victor J. Cabelli, assistant professor of microbiology, Dr. Herbert Goldberg, assistant professor of microbiology, and Dr. Robert Keller, assistant professor of microbiology, attended a meeting of the Society of American Bacteriologists in Houston, Texas. All staff members presented papers at the annual meeting. Dr. Engley was convener of the session on "'Pathogenesis" and Dr. Goldberg was a member of a symposium on teaching—where he presented a paper on "Teaching Microbiology to Nurses."

Dr. Clarence D. Davis, professor and chairman of the Department of Obstetrics and Gynecology, attended the Kansas City Gynecological Society meeting in Kansas City on May 4. Dr. Davis also attended the meeting of the American Board of Obstetrics and Gynecology in Chicago May 10 to 20 and served as associate examiner for the group.

Dr. Joseph E. Flynn, professor and chairman of the Department of Pathology was made president-elect of the Missouri Society of Pathologists in April. During the month of May the Central Society of Pathologists was formed and they will meet at McAlester Hall at the University of Missouri every first and third Tuesday. Dr. Flynn attended the American Medical Association meeting in Chicago on June 11 to 15. Dr. M. Pinson Neal, professor of pathology, was guest speaker at the annual dinner meeting of the Greater Kansas City Academy of General Practice in Kansas City at the Pickwick Hotel on May 17. Dr. Claud K. Leeper, assistant professor of pathology, was a member of a group sponsored by the U. S. Public Health Service, consisting of cancer coordinators from medical and dental schools in the United States, which met in Detroit on June 3.

Dr. Robert L. Jackson, professor and chairman of the

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1. Johnston, T. G., and Cazort, A. G.: J. Allergy 27:90, 1956. 2. Schwartz, E.: New York J. Med. 56:570, 1956. 3. Schiller, I. W., et al.: J. Allergy 27:96, 1956.

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Department of Pediatrics, attended scientific meetings and special committee meetings at Buck Hill Falls, Pennsylvania, sponsored by the Society for Pediatric Research and American Pediatric Society. Dr. Walter R. Hepner, Jr., associate professor of pediatrics, and Dr. Clement E. Brooke, instructor in pediatrics, also attended this annual meeting of pediatric physicians interested in teaching and research. On May 18-23 Dr. Jackson attended the annual symposium sponsored by the Council on Foods and Nutrition of the American Medical Association in Los Angeles, California. Dr. Jackson also traveled to Chicago to take part in a Council Meeting of the American Diabetes Association on June 6-11, at which time he, along with other members, gave a talk on the "Relative Importance of Duration and Control in the Development of Diabetic Retinopathy."

Dr. Dallas K. Meyer, professor of physiology, gave a talk to the Alpha Epsilon Delta Pre-Medical Fraternity at Central College, Fayette, entitled "Pre-Medical Education," on March 31, 1956. Dr. W. S. Platner, professor of physiology, gave an illustrated lecture on "Air Conditioning for Human Comfort" at the Student Union Building in Columbia to the University of Missouri College of Engineering, Department of Mechanical Engineering, on March 22 and 23. Dr. James E. Randall, assistant professor of physiology, attended the Federation of American Societies for Experimental Biology at Atlantic City, New Jersey, on April 18, 1956, where he presented a paper on "Mechanical Impedance of Vascular Bed of the Hindlimb of the Dog."

Dr. Hugh E. Stephenson, Jr., assistant professor of surgery, presented a talk entitled, "Neurological Sequelae of Cardiac Arrest—a Long Term Study," at the American Academy of Neurologists, meeting in St. Louis on April 26. Dr. Stephenson also attended the scientific session of the Society of Vascular Surgery on June 10 and the annual meeting of the American Medical Association in Chicago on June 11-12. Dr. Samuel P. W. Black, associate professor of surgery, attended a meeting of the St. Louis Neurosurgical Club on May 10.

New Appointments

Miss Ruby Potter has been appointed professor of nursing and Director of the School of Nursing effective August 1, 1956. Miss Potter received her B.S. in Nursing from the University of California, and is presently completing her Doctorate in Nursing Administration at the University of Colorado.

Dr. Theodore E. Keats was appointed associate professor of radiology effective June 15, 1956. Dr. Keats received his M.D. degree from the University of Pennsylvania and was with the University of California School of Medicine in San Francisco until his appointment at the University of Missouri.

Mr. William Kaye Beatty was appointed associate librarian and assistant professor of medical bibliography effective June 1, 1956. Mr. Beatty received his M.S. degree from Columbia University. He was with the College of Physicians of Philadelphia from 1952 until the present time.

Dr. Michael H. Ivey has been appointed assistant professor of microbiology effective August 1, 1956. Dr. Ivey received his Ph.D. degree from the University of North Carolina, where he is a graduate assistant in parasitology at present.

Dr. Jack M. Martt was appointed assistant professor of medicine as of July 1, 1956. Dr. Martt received his M.D. degree from Washington University and was with the University of Iowa College of Medicine until his appointment.

Dr. Jacob S. Roden was appointed assistant professor of obstetrics and gynecology effective July 15, 1956. Dr. Roden received his M.D. degree from the University of Texas Medical Branch and has been in private practice until the present time.

Mrs. Byrdine H. Tuthill has been appointed assistant director of dietary and assistant professor of home economics effective August 1, 1956. Mrs. Tuthill received her M.S. degree from the University of Wisconsin and is at present with the School of Home Economics there.

Dr. Marvin Zatsman was appointed assistant professor of physiology effective July 1, 1956. Dr. Zatsman received his Ph.D. degree from Ohio State University and was an assistant professor of physiology there until June 1956.

Dr. Kenneth L. Fitch has been appointed as instructor in anatomy effective August 1, 1956. Dr. Fitch received his Ph.D. from the University of Michigan. He is presently at Ohio University.

Miss Ruth Kathryn Linville was appointed instructor in nursing effective June 4, 1956. Miss Linville received a B.S. in Nursing from the University of Missouri, and was with the Chillicothe City Hospital, Chillicothe at the time of her appointment.

Dr. Helen M. Waiches was appointed instructor in pediatrics effective July 1, 1956. Dr. Waiches received her M.D. degree from the University of Chicago. Dr. Waiches was with the St. Louis City Hospital until the time of her appointment.

Dr. Mary Elizabeth Bowen was appointed assistant instructor in pediatrics effective July 1, 1956. Dr. Bowen received her M.D. degree from Washington University. She has been in private practice in Chicago since 1946.

Mrs. Vena Rae Hooks was appointed assistant instructor in nursing effective June 1, 1956. Mrs. Hooks received a B.S. in Nursing from Wagner College, Staten Island, New York and has been with the Mary Bridge Children's Hospital in Tacoma, Washington.

Dr. Marie Jabbar was appointed assistant instructor in pediatrics effective July 1, 1956. Dr. Jabbar received her M.D. degree from Christian Medical College, Vellon, South India. Dr. Jabbar was with the Children's Mercy Hospital in Kansas City until the time of her appointment.

Dr. Bonita Jeanne Peterson has been appointed assistant instructor in pathology effective January 1, 1957. Dr. Peterson received her M.D. degree from Columbia University and is presently employed by the University of Missouri Student Health Service.

Dr. James Frederick Ransdell was appointed assistant instructor in the Department of Pathology effective July 1, 1956. Dr. Ransdell received his M.D. degree from St. Louis University, where he was employed until his appointment.

Dr. Carlos P. Trevino was appointed assistant instructor in pediatrics effective July 1, 1956. Dr. Trevino received his M.D. degree from the National University of Mexico School of Medicine and has been with the Driscoll Foundation Children's Hospital in Corpus Christi, Texas.

Dr. Kenneth Glover, Mount Vernon, was appointed

Preceptor in General Practice on June 1. Dr. Glover received his M.D. degree from Washington University.

Dr. Wyeth Hamlin, Palmyra, was appointed Preceptor in General Practice on June 1. Dr. Hamlin received his M.D. degree from the University of Cincinnati.

Dr. Doyle C. McCraw, Bolivar, was appointed Preceptor in General Practice June 1. Dr. McCraw received his M.D. degree from St. Louis University.

Dr. Peter V. Siegel, Smithton, was appointed Preceptor in General Practice June 1. Dr. Siegel received his M.D. degree from New York University College of Medicine.

Dr. Arch E. Spelman, Smithville, was appointed Preceptor in General Practice on June 1. Dr. Spelman received his M.D. degree from the University of Illinois.

Dr. James H. Trolinger, Jackson, was appointed Preceptor in General Practice June 1. Dr. Trolinger received his M.D. degree from Temple University.

Guest Lecturers

On April 26, Dr. Robert Faucett, Psychiatrist, Mayo Clinic, Rochester, Minnesota, addressed the third year medical students and members of the faculty who were able to attend on the subject, "Medical Control of Pain."

On Friday, April 27, Dr. C. J. Railmann, associate professor of psychiatry, Vanderbilt University, participated in a panel discussion presented by the third year medical students on child guidance and development.

On May 8, Dr. Victor P. Buhler, Kansas City, Past President of the Missouri State Medical Association, addressed the third year medical students on "Medical Ethics."

Curriculum

The fourth year curriculum for medical students at the University of Missouri will begin on June 11, 1956, and terminate June 3, 1957. The fourth year will be divided into four blocks of equal length of time—one block to consist of surgery and surgical specialties, one block to be medicine and medical specialties, one block to be equally divided between obstetrics-gynecology and pediatrics and the remaining block to be divided between electives, including a preceptorship program and psychiatry.

General

At Commencement Exercises held on June 6, 1956, the degree of Bachelor of Science in Medicine was conferred on one candidate and the degree of Bachelor of Science in Nursing on thirteen candidates.

Postgraduate Activities

The last in a series of six sessions in Postgraduate Medical Education being presented in Joplin and Springfield, was held on April 18 and 19, with Dr. Joseph E. Flynn and Dr. Frederic E. Simpson giving the lectures. Dr. Flynn, professor of pathology, spoke on "Fundamentals of Blood Clotting" and "Evaluation of Liver Function Tests." Dr. Simpson lectured on "Acute Poisoning in Children," and "The Child Who Coughs." At the Columbia session on Postgraduate Medical Education, on April 26, Dr. Clement E. Brooke, instructor in pediatrics, spoke on "Antibiotics

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in Children," and Dr. Clarence D. Davis, professor of obstetrics and gynecology, spoke on "Management of Hypertensive Disorders in Pregnancy." At the last Columbia session on May 17 Dr. Horace E. Thomas, clinical associate in the Department of Surgery, lectured on "Present Concepts in the Treatment of Gall Bladder Disease," and Dr. Fredric E. Simpson, instructor in pediatrics, spoke on "Acute Poisoning in Children."

Faculty Promotions

Dr. Stuart O. Landry has been promoted from instructor to assistant professor of anatomy; Dr. F. Eugene Doenges from assistant instructor to instructor; Dr. Constantine S. Anast from instructor to assistant professor in pediatrics; Dr. Clement E. Brooke from instructor to assistant professor in pediatrics; Dr. Fredric E. Simpson from instructor to assistant professor in pediatrics, all effective September 1, 1956. Dr. Simpson was also appointed Medical Director of the Missouri State Crippled Children's Service effective July 1, 1956. Dr. Walter R. Hepner, Jr., Associate Professor in Pediatrics, and Medical Director of the Missouri State Crippled Children's Service until July 1, 1956, will be Medical Advisor of the Service effective that date.

Dr. Hugh Stephenson, Jr., has been promoted from assistant professor to associate professor of surgery, effective September 1, 1956.

SAINT LOUIS UNIVERSITY

Elections, Promotions

Dr. Raymond O. Muether, associate professor of internal medicine of the School of Medicine, has been elected President of the Staff of the St. Mary's Group of Hospitals of Saint Louis University, it has been announced by Dr. James W. Colbert, Jr., Dean. Dr. Grey Jones, assistant professor of clinical gynecology and obstetrics, has been elected vice president, while Dr. Paul Murphy, associate professor of clinical medicine and Chief of Section of Chest Diseases has been elected secretary. The physicians were elected to office for a one year term by the medical staff of the St. Mary's Group of Hospitals. The staff includes all physicians who are members of the Medical School faculty, and who are privileged to attend patients at St. Mary's Hospital, Firmin Desloge Hospital and Mount St. Rose Hospital.

Dr. Jerome I. Simon, a 1928 graduate of the School of Medicine, was elected president of the University's medical alumni organization at an alumni reunion held at the Conrad Hilton Hotel in Chicago June 13 during the American Medical Association meeting. Dr. Simon is assistant professor of clinical surgery. Retiring president was Dr. Alphonse McMahon, associate professor of internal medicine and chief-of-staff at St. John's Hospital. Elected as vice presidents were: Dr. Vincent Cianci, a 1930 graduate of Providence, Rhode Island, and Dr. Ralph V. Byrne, a 1930 graduate of Los Angeles, California. Dr. Clement B. Grebel, assistant in internal medicine, a 1948 graduate, was reelected secretary of the medical alumni organization.

Conventions and Lectures

Dr. Goronwy O. Broun, professor of internal medicine and chairman, Department of Internal Medicine, and Miss Rose Rita Schmidt, technician, won an A.M.A. award for an exhibit in the Section on Internal Medicine at the annual meeting of the American Medical Association held in Chicago June 11-15. The exhibit was on "Epidemiology of Influenza as Demonstrated by a Study of Serum Pools." The exhibit was designed by Prof. Philip A. Conrath, associate professor of medical illustration and director of the section of medical illustration. At the same meeting, Dr. C. Allen Wall, chief resident of surgery, and Dr. S. Patrick S. Peartree, instructor in radiology, presented a paper in the section of surgery on the "Practical Value of Cholangiography." Dr. Wall also participated in a panel discussion on "Common Duct Stones." Dr. Alphonse McMahon, associate professor of internal medicine opened a discussion in the section on military medicine on "Myocardial Infarction in a Military Population."

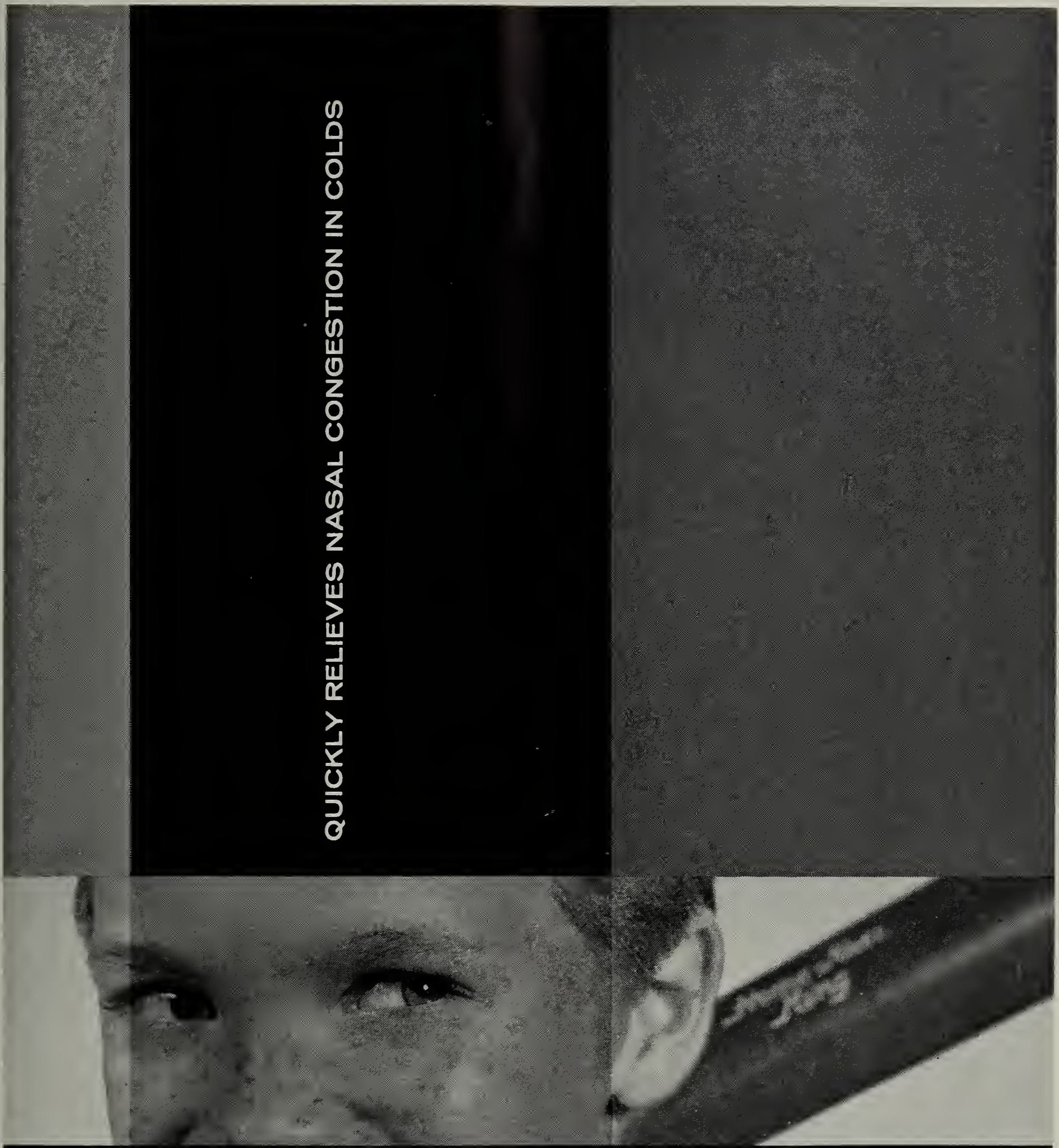
Dr. William F. Alexander, associate professor of anatomy, was invited to attend the first International European Symposium on Vitamin B_{12} held at Hamburg, Germany, May 25, 26 and 27. Dr. Alexander delivered a paper titled "Pathomorphology of the Nervous System in Vitamin B_{12} Deficiency." While abroad Dr. Alexander visited the departments of anatomy at the following medical schools: University of Copenhagen in Stockholm; King's College and University College in London; University of Edinburgh in Scotland; University of Glasgow in Scotland; Trinity College in Dublin and Uppsala Medical School in Sweden.

Dr. Bernard J. McMahon, professor of clinical otolaryngology and director of the department, was present at a series of annual meetings held in Canada in May. Dr. McMahon attended the meeting of the American Board of Otolaryngology, of which he is vice president May 6-11. He attended a meeting of the American Otological Society from May 11 to 12, and a meeting of the American Laryngological Association, of which he is president. The latter two meetings were held at the Seigniory Club, eighty miles north of Montreal. Dr. McMahon also was present at the meeting of the American Laryngological, Rhinological and Otological Society held in Montreal May 15-18.

Dr. R. Walter Schlesinger, director of the department of microbiology, lectured on "Recent Developments in the Study of Respiratory Viruses" before the Miner's Memorial Hospital in Beckley, West Virginia, June 7. He also appeared before the annual meeting of the West Virginia Public Health Association June 8 in Charlestown. At that session he spoke on "Perspectives in the Recognition and Control of Virus Diseases." On June 11 and 12, Dr. Schlesinger attended a meeting of the local American Cancer Society and Medical Society in El Paso, Texas, where he lectured on "Persistent Virus Infections and Their Possible Relation to the Tumor Problem."

Dr. Edmund A. Smolik, associate professor of clinical surgery, lectured on "Blood Loss During Surgery Measured by Radioisotopes" before the University of Louisville Hospitals Alumni Day June 26. Dr. Smolik was awarded his M.S. Degree from the University of Louisville in 1940.

Dr. C. Rollins Hanlon, Director of the Department of Surgery, and Dr. James Lewis, Jr., assistant pro-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fessor of surgery, attended a meeting of the American Association for Thoracic Surgery held at the Hotel Fontaine Bleau in Miami Beach, Florida, May 7, 8 and 9.

Dr. Willard Bartlett, assistant professor of clinical surgery, spoke before a scientific symposium of the St. Louis Academy of General Practice at the Hotel Chase May 27. Dr. Bartlett presented the principles by which the physician can evaluate the likelihood of a gallbladder attack either subsiding or developing into a complicated case with peritonitis or jaundice.

Drs. Donald W. Bussman, instructor in internal medicine, Robert Potaschnick, senior instructor in internal medicine, and J. Gerard Mudd, instructor in internal medicine, participated in a panel discussion on "Bedside Diagnosis and Treatment of Arrhythmia" before the Mid-Missouri Medical Society in Rolla on May 24.

WASHINGTON UNIVERSITY

Awards

Dr. Bernard Becker, professor of ophthalmology and head of the department, recently received the second Edward Lorenzo Holmes award from the Institute of Medicine of Chicago. Dr. Becker was cited for his work on the pathologic physiology of glaucoma and the relationship of adrenal steroids to diabetic vascular disease. The late Dr. Holmes was one of the founders of the Illinois Eye and Ear Infirmary.

Dr. Melvin Cohn, associate professor of microbiology, recently was awarded the annual Research Award in Bacteriology and Immunology presented by the Eli Lilly Co. The award, given to a young microbiologist who has performed outstanding research in his field, was made during the 56th general meeting of the Society of American Bacteriologists in Houston. Dr. Cohn, who received his Ph.D. degree in biochemistry from New York University in 1949, was engaged in research at the Pasteur Institute in Paris before coming to the medical school.

Lectures

Prof. Ian Aird, of the Postgraduate Medical School, London, gave two lectures at the medical school recently. His subjects were: "Care of Casualties in National Disaster," and "The Relationship Between the ABO Blood Groups and Cancer of the Stomach." The first lecture was sponsored by the Medical Education for National Defense group at the medical school. Prof. Aird, noted particularly for his work on intestinal obstruction, did postgraduate work in the department of surgery at the medical school here in 1934-1935 under a Rockefeller traveling fellowship. Prof. Aird is the professor of surgery at the Postgraduate Medical School, which is the center for postgraduate training throughout the British Commonwealth. It is a division of the University of London.

Dr. W. A. H. Rushton, director of medical studies at the Trinity College of the University of Cambridge, England, discussed the "Physiology of Human Retinal Elements" at a recent lecture at the medical school sponsored by the department of physiology. Dr. Rushton is particularly noted for contributions to mathematical biophysics of nerve activity. His recent work, which he described in the lecture, involves studies of light reflected from the human eye.

The fourth annual Alpha Omega Alpha lecture was given recently by Dr. Robert B. King, assistant professor of neurosurgery and Markle fellow in neurosurgery at the medical school. He presented "A Study of Trigeminal Nerve Potentials." Recently the Alpha of Missouri chapter of AOA initiated twenty-two members at an annual banquet. Senior medical students initiated were: Charles C. Abel, Eugene B. Feigelson, Harry A. Fozzard, Thomas N. Hunt, William B. Hutchinson, Kenneth H. Kapphahn, Quentin H. Lehmann, Edward C. Lynch, Seymour Cy Nash, Robert C. Packman, LeRoy A. Pesch, Ethelee Ray, William A. Reynolds and George P. Wilson. Junior class initiates were: Edward H. Forgotson, Guido Guidotti, Frank E. Kendrick, Jr., and Kenneth R. Smith. Guidotti will serve as Alpha Omega Alpha president next year, and Kendrick will be vice president. Faculty members initiated were: Dr. William J. Harrington, assistant professor of medicine; Dr. William G. Klingberg, associate professor of pediatrics; Dr. William H. Masters, associate professor of obstetrics and gynecology, and Dr. H. Mitchell Perry, instructor in medicine.

Alumni Program

A clinical program was held for the alumni of the school of medicine on June 1. Faculty members who participated in the program included: Dr. Paul O. Hagemann, assistant professor of clinical medicine; Dr. Alexis F. Hartmann, professor and head of the department of pediatrics; Dr. Frank McDowell, associate professor of clinical surgery; Dr. Alfred Goldman, associate professor of clinical medicine and director of the division of chest diseases in the department; Dr. Evarts A. Graham, Bixby professor emeritus and lecturer in surgery; Dr. Samuel B. Grant, assistant professor of clinical medicine; Dr. William B. Seaman, professor of radiology; Dr. Carl A. Moyer, Bixby professor and head of the department of surgery; Dr. Willard B. Walker, assistant in clinical surgery, and Dr. Carl V. Moore, Busch professor and head of the department of medicine. Dr. Stewart Harral, director of public relations studies at the University of Oklahoma, spoke at the annual banquet of the Medical Alumni Association held June 1.

Open House

An open house was held by the Child Evaluation Clinic at Washington University Medical Center recently. Members of the clinic staff and medical consultants conducted tours, and exhibits were set up to explain the work of the clinic. A movie depicting the needs of the retarded child was shown every fifteen minutes. The clinic, the first of its kind in Missouri, began operation February 1, primarily for the diagnosis and guidance of mentally retarded children. It is supported by funds from the Children's Research Foundation, the St. Louis Association for Retarded Children and the United Fund. Dr. Bettye M. Caldwell is the clinic director.

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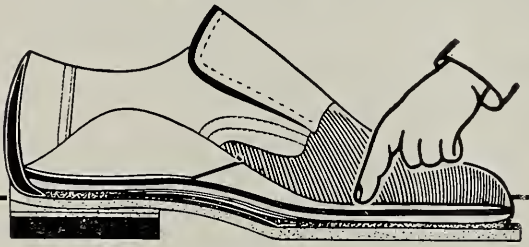

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Missouri Medicine in Review

(Continued from page 654)

The more than three million babies born in the United States in 1945 reflect the continuing increase in the birth rate for the last several years. It is estimated that between 1933 and 1943 the birth rate increased 30 per cent, according to an editorial in the May 18 issue of *The Journal of the American Medical Association.*

During the year 1945, the paper shortage continued, thus The Journal was smaller than in former years. It was decided as a result to send out a periodic Secretary's News Letter which would contain information of interest to the county presidents and secretaries. This News Letter will be continued although it will soon be possible to bring The Journal up to the level of previous years.

Dr. Carl F. Vohs, St. Louis, President of the Missouri Medical Service, reports: "We have from Kansas City a membership of 135,000 and out of St. Louis, a membership of 650,000. The medical plan which has been operating in Kansas City for about three years has a membership of 55,000 and the plan in St. Louis has a membership of 37,439."

The Ninety-fifth Annual Session of the American Medical Association convened in San Francisco, July 1 to 5. More than 7,600 physicians registered for the meeting. It was the largest enrollment for several years. Officers elected were: President-Elect, Olin West, M.D., Chicago, who resigned as Secretary and General Manager a few months ago; Vice President, E. L. Bortz, M.D., Philadelphia; Secretary, George F. Lull, M.D., Chicago; Treasurer, Joseph J. Moore, M.D., Chicago. The 1947 meeting will take place in Atlantic City, June 9, 1947. This will mark the one hundredth anniversary of the founding of the American Medical Association.

Musings of the Field Secretary

(Continued from page 698)

disabled persons. "Abilities, Inc." makes precision equipment in the field of electronics. After listening to his splendid talk and seeing the almost unbelievable views of his plant and employees, via slides, one was ready to go along with him when he emphasized that there are no handicapped people, just people.

He told how Abilities, Inc. was started by a loan from private enterprise, how it selects and trains its employees so that they all become productive workers, how the company competes in the competitive market of today and how this has all been done without government aid but through the American heritage of free enterprise.

Curiosa et Trivia

William B. McCunniff, M.D.

According to V.A. reports, 95 per cent of rehabilitated veterans with heart and circulatory ailments are working as wage-earners . . . 86 per cent using skills acquired in training.

Fatal accidents due to fire and burns are lowest in July and August, highest in December; those due to firearms are lowest in April, highest in November; and those due to poisonous gas are lowest in July and highest in January and December.

Hail the prevalence of logic: the International Academy of Proctology headquarters in Flushing, New York!

One ladies' foundation garment manufacturer sold over 50,000 corsets to American men in 1955.

The most in queen-size twins: born in an automobile just outside a Chicago hospital September, 1955 . . . one girl weighed 8:14, the other 8:1.

Sixty-five per cent of the beef currently marketed in the U. S. has been fed a ration containing stilbestrol. Even huge doses are said to have no effect on the eventual consumer.

Colorado's Dr. Florence Sabin is the only person ever honored in Washington's Statuary Hall for contributions to medical science. She is also the second woman ever honored by the Hall.

The average American, excluding farmers, spends about 7,000 hours a year indoors . . . and does close work for about two thirds of that time.

Capsule Clinics

I. A. Wien, M.D.

- Pain precedes the jaundice in approximately 80 per cent of all cases of carcinoma of the pancreas. This pain, usually in the upper and mid-abdomen may be dull, paroxysmal, cramping, or sharp in character. Sanders, L. C., and McBurney, R.: Am. J. Gastroenterol. **25** (January) 1956.
- Bronchiectasis in children began in nearly all cases with an acute upper respiratory infection as pneumonia, pertussis, or measles. Strang, C.: Ann. Int. Med. **44** (April) 1956.
- The jaundice following Thorazine therapy is usually due to sensitivity to the drug and ordinarily disappears on withdrawal. Because of the common toxic reactions it should not be the first drug used in the treatment of conditions of anxiety and tension. Atkinson, R. P., *et al.*: Lahey Clin. Bull. **9** (October) 1955.
- Marginal gastrojejunal ulcers may result in gastrojejunocolic fistula in 8 per cent of these patients. Gessler, C. N.: Am. J. Surg. **91** (May) 1956.

A more complete gall bladder regimen in a single tablet...

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Each Tite-Coat Red Tablet Contains:

Extracts of Whole Bile (Equal parts Ox and Hog)	210.0 mg.
Ketocholanic Acids (Oxidized or keto form of normally occurring bile acids containing approximately 93% dehydrocholic acid)	90.0 mg.
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SAMPLES AND LITERATURE ON REQUEST

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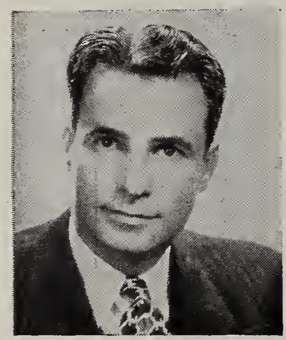
Entered as second-class matter, February 18, 1925, at the post office at Fulton, Missouri, under the Act of March 3, 1879. Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917. Publication Office: 1201-5 Bluff Street, Fulton, Missouri. Editorial Office: 634 N. Grand Ave., St. Louis 3, Mo. Subscription Price: $3.00 Per Year. Printed by The Ovid Bell Press, Inc., Fulton, Missouri.

Missouri Medicine in Review

Leo H. Pollock, M.D.

FORTY YEARS AGO



The Clay County Medical Society had a very enthusiastic meeting held in the Major Hotel in Liberty. Practically every part of the county was represented except Excelsior Springs. Dr. C. H. Suddarth of Smithville, read the paper of the evening. His subject was pneumonia. He reminded that the more we theorized, the higher the mortality rate crept. He gave some startling statistics gleaned from the hospitals of a nearby city, with a steadily diminishing percentage of cures. And all this in a self-limited disease, where the natural tendency to recovery was strong. He was inclined to blame the treatment for the results. He advocated a sustaining, expectant treatment. He condemned calomel and coal tars. He had little use for strychnia and digitalis. The serum treatment, he had little need to employ. The hot spongebath he recommended strongly, with plenty of fresh air. He employed aconite, bryonia, and ipecac, early in his cases. He did not emphasize veratrum.

The school board of St. Joseph has requested the Buchanan County Medical Society to propose a plan for systematic inspection of school children.

Dr. W. R. Hardin, of Louisiana, has been appointed local surgeon for the Burlington Railroad at that point.

A City-Wide crusade against rats, stray cats and dogs has been started at Joplin by Dr. R. B. Tyler, health commissioner.

The Medical Association of the Southwest will hold its eleventh annual meeting at Fort Smith, Arkansas, October 2, 3, 4.

Dr. W. A. Clark, of Jefferson City, has been appointed penitentiary physician in the place of Dr. George L. McCutcheon, resigned.

Dr. B. K. Stumberg, of St. Charles, has been appointed surgeon in the Army Hospital at Honolulu. He sailed about September 2.

Dr. C. P. Lewellen, of Louisiana, president of the Pike County Medical Society, is serving in the Missouri National Guard as First Lieutenant and is now located on the Texas border.

Dr. F. G. Beard, of St. Joseph, has been appointed health officer for that city. Dr. Beard has been city physician and police surgeon for a number of years. Dr. J. L. Cox has been appointed police surgeon.

The health of pigs is more precious than the health of babies. In some states patent medicines for pigs must be labeled to show the active ingredients but the ingredients of medicines for babies remains a deep and dark mystery.

Dr. James R. Clemens, head of the Department of Children's Diseases in the medical department of St. Louis University and for many years prominent in the profession at St. Louis, has accepted the deanship of the John A. Creighton Medical School at Lincoln, Nebraska.

TWENTY-FIVE YEARS AGO

The St. Louis County Hospital, North and South Road west of Davis Place, was dedicated July 18 and began operation July 20. The hospital has a capacity of 150 beds and 48 bassinets of which 50 beds and 24 bassinets are for Negroes. Dr. Eugene A. Scharff, former superintendent of the St. Louis City Hospital, is head of the staff and superintendent. The hospital will have a staff of ninety physicians.

Dr. Brij Mohan Sharma, professor of anatomy and surgery at Tibbi Medical College, Delhi, India, who has been observing methods of medical teaching at Washington University School of Medicine, sailed for Europe July 10.

Dr. St. Elmo Sanders was born in Owensburg, Indiana, April 2, 1873, and died at his home, 520 Spruce Street, in Kansas City, Missouri, June 1, 1931. Dr. Sanders was professor of anatomy in the University Medical College from 1904 to 1909, and was professor of surgery in the same college from 1909 to 1913. He was professor of surgery in the Postgraduate Medical School in Kansas City for two years, 1909-1911.

On Thursday evening the Dunklin County Medical Society acted as host for the quarterly entertainment of the Five-County Group, the meeting being held in the basement of the Christian Church at Malden. An excellent luncheon was served by the ladies of the church. The president of the Dunklin County Medical Society, Dr. W. L. Gossage, Kennett, being in Philadelphia at this time, the chair was filled by the vice president, Dr. Paul Baldwin, Kennett, who is possessed of unusual ability as an executive.

Dr. F. L. Martin, Nevada, was appointed assistant superintendent of State Hospital No. 3, Nevada, August 5, to succeed Dr. E. H. Coon, resigned.

It has been two years since, at Evansville, Ind., a tank containing nitrous oxide exploded, killing an anesthetist. Last month, a patient died on the operating table in Los Angeles because of the explosion of an anesthetic mixture. Yet the hazard from an explosion of anesthetics is probably less than that of fatally persistent hiccup. It has been pointed out that surgeons and anesthetists need far

(Continued on page 750)

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Missouri Academy of General Practice

J. H. Trolinger, M.D.

On May 17, 1956, the annual dinner meeting of the Kansas City Academy of General Practice was held at the Pickwick Hotel in Kansas City. This meeting was unusually well attended by members, their wives and guests to honor their outgoing president, R. R. Becker, M.D. Dr. M. Pinson Neal, Pathologist, of Columbia, was the speaker of the evening. He was introduced by Dr. Casebolt of Kansas City, and following his address, he was most signally honored by the Missouri Academy of General Practice in conjunction with the Greater Kansas City Academy of General Practice in being designated Missouri's outstanding doctor in the field of medicine. Since the American Academy of General Practice has only recently approved the practice of so honoring doctors who have proved outstanding in their field of medicine, Dr. Neal's distinguished honor was considerably enhanced by the fact that it was the first occasion in the United States that such an award has been bestowed through the AAGP or its constituent state chapters. Dr. Thomas L. Dwyer, president of the MAGP, made the presentation. The plaque awarded to Dr. Neal is appropriately inscribed as follows: "For meritorious work in medical education."

A major milestone in the progress and development of the American Academy of General Practice will be passed on the afternoon of September 1 when formal dedication of the headquarters building in Kansas City will take place. The Headquarters staff moved into the new building Monday morning, July 2, and were shortly in full operation in their new headquarters. All Missouri GPs will be justly gratified to learn that at their meeting on May 20, 1956, the Board of Directors voted a gift of five hundred dollars for the AAGP Building Fund to be especially designated as a donation of all members of the Missouri Academy of General Practice. All Missouri physicians are invited and urged to attend the dedication ceremonies of our new national headquarters building in Kansas City on September 1. The completion of this magnificent edifice is an achievement of which all GPs can be justly proud. Our new building will soon be graced by a splendid oil portrait of the late honorary member of the Academy, Sir Alexander Fleming, thanks to the generous contribution of a sum of $2000 by the Charles A. Pfizer and Company for the commissioning of such a portrait.

We are happy to congratulate the following Missouri physicians recently approved for active membership in the MAGP: A. Conrad Malles, M.D., St. Louis; Alvin Lewis Lowe, M.D., Sedalia; Donald C. Proctor, M.D., Sedalia; Jo Robert Cochran, M.D., Cape Girardeau; Donald E. Kuenzi, Gashland, and Luke J. Dlabal, M.D., Independence.

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1. Fazekas, J.F., et al.: J.A.M.A. **161**:46 (May 5) 1956. 2. Mitchell, E.H.: J.A.M.A. **161**:44 (May 5) 1956.

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Woman's Auxiliary

MRS. CHARLES *(Susan)* SHEPHERD, *President*

On September 18-19, the Boone County Auxiliary will be hostess to the board members of the Woman's Auxiliary to the Missouri State Medical Association with each county board especially invited. The meeting this year will be patterned after the Conference of president, presidents-elect and national board members of the A.M.A. Auxiliary, with panel discussions and resource speakers on various phases of Auxiliary activities.

Mrs. William Sodeman is chairman of arrangements, with Mrs. James Allee, president, and members of the Boone County Auxiliary on the hostess committee.

We will begin on Tuesday at 1:45 p.m. and hear first, a panel on "Mental Health," moderated by Mrs. W. H. Ames, St. Joseph, the state chairman. A.M.A. suggested that we gear our educational programs to the "Care of the Psychotic Child in the U. S." as there are thousands of children requiring care. Later in the evening we will preview a new movie released by Smith, Kline & French on this subject, "Child Behind the Wall."

Each panel will be given thirty minutes for moderator, speaker and a question and answer period. The next panel will be on "American Medical Education Foundation," with Mrs. Maxmilian Weitman, of St. Louis County, chairman who will introduce Royce Bohrer, M.D., Secretary, Missouri State Medical Association, the guest speaker. Auxiliaries all over the country contributed more than $106,222 to the A.M.E.F. last year. Of this amount the Missouri Auxiliary gave $950. Our goal this year will be a minimum of $1 per member.

The "Civil Defense" panel with Mrs. Bertalon Bolgar of Festus, chairman, will introduce Mrs. Jean Houston, Missouri Director of Women's Activities in Civil Defense, as guest speaker. Our goal this year is education of our members in home protection exercises and to not only learn home nursing, but to teach classes to other lay people in the communities.

"Health Careers Recruitment," one of our major objectives, will have a panel with Mrs. A. P. Stephan, state chairman, as moderator, and Mrs. Richard Sutter, who is cochairman and who has effectively set up the Careers Recruitment program through the St. Louis Social Planning Council, as the speaker. Later in the evening we will preview two films, "Careers—Medical Technologists" and "Girl With the Lamp."

The Legislation panel with Mrs. T. Reed Maxson, moderator, will present Mr. Tom O'Brien, Executive Secretary of the M.S.M.A. as the guest speaker, who will discuss health legislation on the national and local scene.

At 4:30 p.m. members and guests will adjourn for a social hour to be followed by dinner. A program for the evening has been planned strictly for entertainment. Auxiliary members from various counties will appear in a Tableaux presentation of cartoons by Dorothy Bond and other cartoonists. The later part of the evening will be devoted to previews of films which are available for county auxiliaries to show at their own meetings or to other organizations in their counties. Included in this showing will be the new film from the National Safety Council, "Danger in Darkness" pointing up the fact that there are more than 30,000 people killed yearly and 100,000,000 injured in automobile accidents, which presents a problem greater than all infectious diseases except tuberculosis. This comes under the heading of "Safety" which has been added to the Auxiliary agenda this year.

The following morning we will hear reports from the other committee chairmen and progress reports of officers and county presidents. After a luncheon, the members are invited to tour the new medical school and hospital.

These are some of the highlights planned for the two day session of the distaff side of the medical profession. We hope that doctors will not mind too much being left at home, however you would be most welcome to come with our Auxiliary member to this meeting, but in the event you cannot come along, do please encourage your wife to attend. Much thought and effort is being put into this meeting and we expect it to be a fine one.

For the doctors who do not have an Auxiliary member in their family, may we suggest that you too encourage you wife to come to this meeting and get acquainted with other members of the team and see and hear first hand what we do and how we operate. The welcome sign is always out. We need the support of every doctor's wife in the vast program of the Auxiliary.

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In addition to these important features, meat contributes valuable nutritional factors by virtue of its generous supply of high quality protein, B vitamins, and essential minerals—iron, phosphorus, potassium, and magnesium.

Easy digestibility, a prime requisite of foods eaten by the patient with congestive cardiac failure, is another outstanding quality of meat.

---

1. Odel, H. M.: Nutrition in Cardiovascular Disease, in Wohl, M. G., and Goodhart, R. S.: Modern Nutrition in Health and Disease, Dietotherapy, Philadelphia, Lea & Febiger, 1955, p. 709.
2. Berg, C. P.: Utilization of Protein, J. Agr. & Food Chem. *3*:575 (July) 1955.
3. Best, C. H., and Taylor, N. B.: The Physiological Basis of Medical Practice, ed. 6, Baltimore, Williams & Wilkins, 1955, p. 638.

The nutritional statements made in this advertisement have been reviewed by the Council on Foods and Nutrition of the American Medical Association and found consistent with current authoritative medical opinion.

American Meat Institute
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Missouri Medicine in Review

(*Continued from page 742*)

more to utilize means to prevent postoperative pneumonia than to worry over the hazards of explosions, except of course explosions due to carelessness. (J.A.M.A., February 14, 1931, p. 530.)

TEN YEARS AGO

Michigan Medical Service now covers 877,000 people, the largest number served by any voluntary medical care plan conducted by physicians.

Dr. Edward H. Skinner, Kansas City, was elected president of the American College of Radiology at the annual meeting in San Francisco on June 29. Dr. Edwin C. Ernst, St. Louis, was elected vice president.

Dr. George H. Thiele, Kansas City, has been elected president-elect of the American Proctologic Society.

Dr. R. Lee Hoffmann, Kansas City, has been elected national representative from the south central branch to the executive council of the American Urological Association.

Dr. Howard B. Goodrich, Hannibal, was elected president of the new six member Board of Medical Examiners at its first meeting in Jefferson City on August 5. Dr. Edwin C. White, Kansas City, was elected vice president, and Dr. Harry A. Klein, St. Louis, secretary-treasurer.

The State Board of Health no longer exists. This board, which was established by the legislature in 1883, successfully performed its various functions until July 1, 1946. The abolishment of the Board of Health by the legislature this year was made necessary by the newly adopted Constitution of the state. The constitution provided that all the boards, bureaus and commissions be consolidated into not more than twelve departments. It further provided that the legislature create a Department of Public Health and Welfare. The Department of Public Health and Welfare officially came into being July 1, 1946. The department comprises three major divisions: Division of Health, Division of Mental Diseases and Division of Welfare. All licensing, including that of doctors of medicine, has been placed in the newly created Department of Education. A new board of medical examination and registration, known as the State Board of Medical Examiners, has been created which will handle the licensing of doctors of medicine. The members of this board are Drs. Howard B. Goodrich, Hannibal; Edwin C. White, Kansas City; W. S. Sewell, Springfield; Paul A. Knepper, St. Joseph; Harry A. Klein, St. Louis, and W. O. Finney, Chaffee. Dr. Goodrich, President of the Association, was elected president of the board.

Mr. Will C. Braun, Chicago, Business Manager of the American Medical Association since 1924 and recently retired, was tendered a testimonial dinner and reception at San Francisco on July 3 in the Colonial Ball Room of the St. Francis Hotel. The dinner was sponsored by "Old Friends of Will Braun, Uninc."

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Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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Vol. 53 September, 1956 Number 9

Advances in Surgery of the Pancreas

HERBERT C. LEE, M.D., *Richmond, Va.*

There are few organs in the human body that resist the surgeon more successfully than does the pancreas. Surgery of the pancreas is a product of the last twenty years, and there have been many attacks on this inaccessable structure, some of which have been successful. In general, however, one must admit that knowledge of the pancreas is meager, that the over-all results are disheartening and that the final answer for most pancreatic disease has not been found. The combined efforts of many surgeons and investigators have led to the present position in handling pancreatic conditions at the Medical College of Virginia and this treatise deals with the day to day handling of such cases. Although one is occasionally called upon to correct pathologic conditions due to pancreatic heterotopia, annular pancreas and traumatic injuries to the pancreas, the vast majority of these cases are due to either acute or chronic inflammation or benign or malignant tumors.

The incidence of pancreatitis is unusually high in the vicinity of Richmond. The records now list more than 700 cases in the last ten years and a report will soon be made on this series which is larger by far than any previously collected. In 1955, for example, there were seventy-eight cases of pancreatitis, sixty-four acute and fourteen chronic. There were twelve deaths, producing a mortality of 18.7 per cent. Because of this large group of cases, there has been opportunity to try many forms of therapy, and because of this clinical experience, and mostly by trial and error, a standardized form of treatment has been formulated that, in our hands, gives the best results.

Pancreatitis is a disease of the lower levels of society, and consequently the majority of our patients are Negro. Only rarely is pancreatitis found in private services, hence most of these cases are treated by the surgical house staff. To properly treat these cases it was felt that there must be a definite plan so that as the series grew, results could be evaluated—good or bad. All instances in acute attack are classified as acute pancreatitis regardless of whether it is the first or one of several attacks. Thus each attack is treated according to plan, although obviously it is a chronic form of the disease in many instances. These statistics, therefore, show a higher incidence of acute disease than is actually had, and a correspondingly lower incidence of chronic disease, yet these figures are only relative and, actually, different stages of the same disease process are being treated.

The natural history of pancreatitis is fairly constant. From the initial attack of acute pancreatitis, the disease process follows a definite course. The patient will either die or completely recover, but the majority will suffer recurrences which eventuate in one of the chronic forms of the disease: cysts, complete fibrosis, the formation of calculi or, finally, complete calcification of the entire parenchyma.

All forms of pancreatitis must be classed as serious disease—the acute because of its high mortality, and the chronic because it is a disabling and debilitating disease which often leads to a patient who is a human derelict, addicted to alcohol, narcotics, or both, and still tortured by the disease itself.

In spite of many reports to the contrary, the cause of pancreatitis is not well understood and, as is true in any condition of unknown etiology, surgical procedures frequently end in failure.

One hears much about the common channel theory, the duct obstruction theory, the effect of the liberation of the various hormones, the evil effects of bile on the pancreatic duct system, the toxic effects of alcohol. For every investigator who is convinced of one theory above all others, there is another investigator who submits ev-

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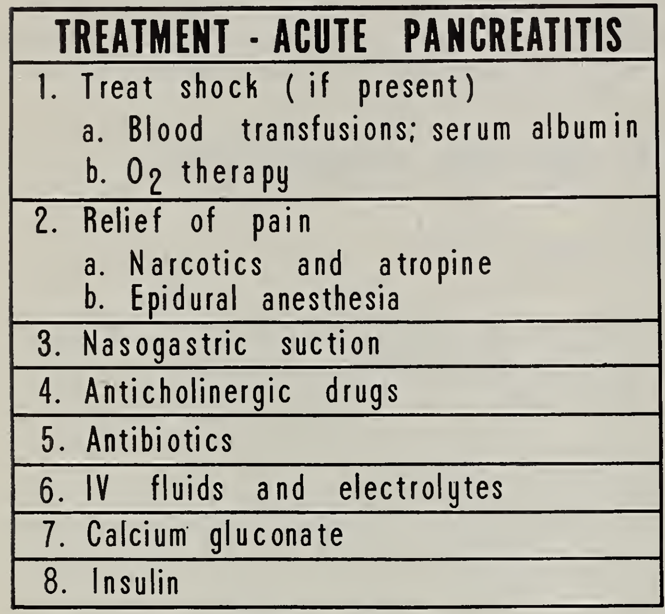
Professor of Clinical Surgery, Medical College of Virginia, Richmond.

Presented at the 98th Annual Session of the Missouri State Medical Association, April 8-11, 1956, St. Louis.

idence that is contradictory. There is no one theory that stands up as the cause of all cases of pancreatitis and, in most such cases, there is a combination of factors necessary to produce the disease.



TREATMENT - ACUTE PANCREATITIS
1. Treat shock (if present) a. Blood transfusions; serum albumin b. O_2 therapy
2. Relief of pain a. Narcotics and atropine b. Epidural anesthesia
3. Nasogastric suction
4. Anticholinergic drugs
5. Antibiotics
6. IV fluids and electrolytes
7. Calcium gluconate
8. Insulin

Fig. 1. Outline of present management of acute pancreatitis.

The common channel theory has caught the imagination of most people as the most likely cause of the disease, but, after a relatively long honeymoon, there is an increasing skepticism throughout the country with respect to the validity of this theory. Regardless of this or any other theory, the key to the rational approach to the surgical treatment of pancreatitis seems to lie in intrapancreatic obstruction, partial or complete, involving one or both ducts. Pancreatitis, therefore, results from an increased intraductal pressure which leads to necrosis or rupture of a duct or acini, with resulting hemorrhage and liberation of trypsinogen and amylase. Blood or tissue exudates will activate trypsinogen into trypsin, a proteolytic enzyme which, when liberated, leads to more hemorrhage and necrosis. The combination of duct obstruction plus increased trypsin activity is thus necessary for the production of pancreatitis. The logical surgical procedure to reverse this process, or to prevent its progression, is one that will promote free pancreatic drainage.

There are two forms of acute pancreatitis—the interstitial, or edematous, and the hemorrhagic, or necrotic. The interstitial variety is a milder and less fatal form of the disease, and there is usually recovery in this form with or without the subsequent recurrence of the disease. The hemorrhagic form may be rapidly fatal, the patient may recover, or may recover only to have the disease recur at a later date. All twelve deaths last year mentioned earlier were in the hemorrhagic form, and most of them occurred in spite of vigorous supportive therapy. There seems to be a certain group of these cases that are so rapidly fulminating that there is no way to control the necrotic process. Fortunately such cases are in the minority. The majority of our cases was of interstitial variety.

THE TREATMENT OF PANCREATITIS

The modern treatment of pancreatitis resolves itself into a more or less standardized procedure for the acute cases, and an individualized form of therapy for the chronic cases. The basic problem in the acute cases is to relieve the disease process and prevent death; whereas in the chronic form the chief interest lies in relieving pain and promoting free drainage again.

ACUTE PANCREATITIS

There are many problems in the accurate diagnosis of acute pancreatitis, but usually it can be made clinically and verified by serum amylase determinations. There must be a differentiation between the two forms of the disease, but this, too, is not too difficult. The hemorrhagic form is usually accompanied by some degree of shock and much more evidence of toxicity.

If shock is present, its correction is imperative and essential to any success with subsequent treatment. Intravenous glucose, whole blood, plasma or serum albumin are administered promptly. Oxygen and vasopressor substances, such as neosynephrin or levophed, are used as indicated. An average drop of 1,500 cc. in blood volume is anticipated, and this amount of blood or blood substitutes is routinely administered as a minimum requirement. Death occurs in those patients who fail to respond to this vigorous therapy. Those patients who recover from the shock, and seem to be in control of the disease process, need subsequent therapy—no less important—but from here on the treatment of the two acute forms is similar.

Pain in pancreatitis is often overwhelming and large doses of narcotics plus atropine are required to bring any relief to the patient. Relief of this pain is essential to the correction of shock, if present, but in the interstitial form, as well as in the hemorrhagic form, after recovery from the shock, a continuous epidural anesthesia is frequently begun. The epidural catheter is inserted by a member of the anesthesia department to the level of the fourth thoracic vertebra and from 10 to 20 cc. of a 1 per cent solution of xylocaine are injected. There usually is a prompt relief of pain and an immediate improvement in the general condition of the patient. The relief of pain produced by the nerve block plus the relief of vasospasm within the gland itself seem to be chief gains from this procedure. Nurses are instructed to inject 10 cc. of the xylocaine solution through the catheter if and when the pain returns. The catheter may be left in place for four or five days if necessary, but it is usually removed after the patient has been free of pain for twelve hours. No narcotics are required while the pain is relieved by this anesthesia, but frequently sedation is necessary.

The shock relieved, and the pain controlled, the pancreas must next be put at physiologic rest. Nasogastric suction is begun and nothing is allowed by mouth. Banthine or probanthine are given parenterally in an attempt to eliminate the cephalic phase of pancreatic secretion. Parenteral insulin and calcium gluconate are often required and large doses of antibiotics are beneficial.

All of this treatment is usually given concurrently. It is carefully administered and the patients are watched closely. Once recovery seems assured, treatment should not be stopped until the patient has been free of symptoms for at least forty-eight hours. Then the suction is removed and food gradually restored to the patient. Following recovery the patient is discharged and warned not to overeat, and to avoid fatty foods, alcohol and stimulants of any kind.

This non-surgical, conservative approach to the handling of acute pancreatitis is generally accepted as giving the best results. This is particularly true in the interstitial form which usually ends in recovery, but it is also true in the hemorrhagic form. Yet when the mortality in this latter variety approaches 15 to 20 per cent, one cannot help but wonder if conservative treatment is sufficient. Obviously some of the cases cannot be salvaged under any treatment, but there is always the small group of patients who seem to be recovering and then suddenly get much worse and die. It is in these patients that we are beginning to offer surgery, particularly if a mass develops, if the peritonitis seems to be spreading, if signs of toxicity increase or if the patient is obviously not improving. Multiple avenues of drainage are established to allow for the escape of treacherous fluids, and this, alone, benefits many of these acutely ill patients. It might be wise to establish biliary decompression at the time of drainage, but we have not done this additional procedure as we feel we should do as little as possible at this critical period of the disease.

There are times, naturally, when we have been unable to make the diagnosis of pancreatitis, and operate for a perforated ulcer or some other acute condition. If pancreatitis is encountered, treatment depends on the form of the disease and the condition of the patient. In the hemorrhagic form drainage is established to the pancreatic area and, if possible, a cholecystostomy is done. If the interstitial form is encountered, the biliary tract is explored, and the gallbladder or common duct drained, and then routine therapy for acute pancreatitis postoperatively is continued.

Thirty days after recovery from acute pancreatitis, the biliary and gastrointestinal tracts are x-rayed routinely. A large percentage of the patients will be found to have a nonfunctioning gallbladder with or without stones. In these patients exploration and cholecystectomy are advised. The common duct is routinely opened and examined. Stones, if present, are removed, the sphincter of Oddi thoroughly dilated, and the common duct drained by a long T tube for at least three months. There is a high incidence of permanent relief after adequate biliary surgery.

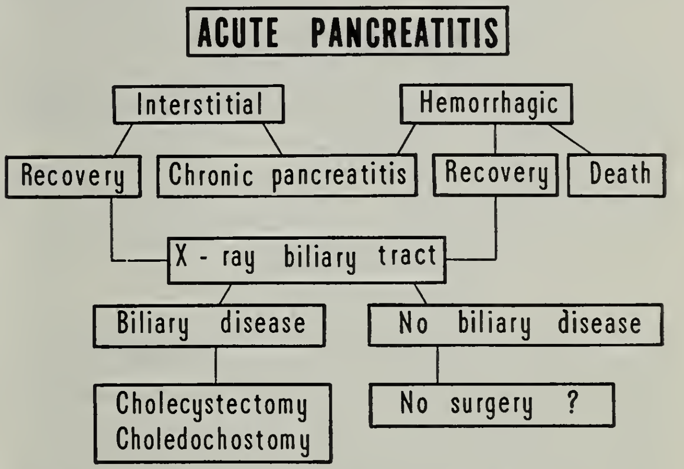


Fig. 2. Diagram summarizing the surgical treatment of acute pancreatitis.

Usually surgery is not advised in those patients who demonstrate no biliary disease, but there is some evidence that prolonged drainage of the common duct would be beneficial in this group also. There does not seem to be a correct answer to this problem with present knowledge.

CHRONIC PANCREATITIS

Some patients remain permanently cured following one or more attacks of acute pancreatitis, but because many of these patients do not follow the prescribed dietary regime, or return to their alcohol, there is a high incidence of recurrence of this disease.

A patient is considered to have chronic pancreatitis when he has had at least three acute attacks or, if there is a positive biopsy showing the disease, or if there is x-ray evidence of calcinosis or calculi. The proper treatment of this aptly called chronic relapsing pancreatitis is a terribly difficult problem.

These patients have often been treated in many hospitals, have seen many doctors, have had one or more previous operations, have frequently been branded as psychoneurotics, and are most often the addicts and chronic complainers. There is no one pattern to follow in operating upon these individuals. All of them eventually need surgery, and it is our impression that the results of surgery are either gratifying after one relatively simple procedure or disappointing after a multiplicity of procedures.

In general, treatment is directed toward (1) drainage of the biliary tract, (2) procedures aimed at decreasing the stimulation of pancreatic secretion, (3) procedures to relieve spasm or other types of obstruction in the region of the sphincter of Oddi, (4) direct operations on the pancreas, or (5) toward various procedures on the nervous system to relieve pain. It is fairly well accepted that any existing gallbladder pathology should be corrected as the initial treatment. At this operation a thorough and careful exploration is carried out. If a cyst is found it is drained either internally or externally depending on whether it is infected or not.

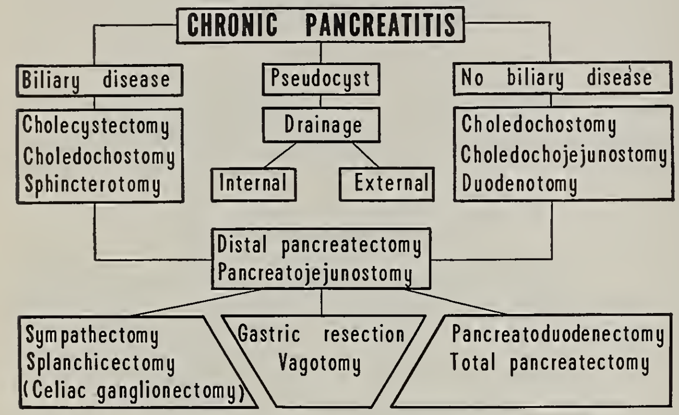


Fig. 3. Diagram summarizing the surgical treatment of chronic pancreatitis.

The gallbladder should be removed if it is abnormal, or if a sphincterotomy is contemplated. The common duct should be opened and explored. The duodenum should be opened routinely and the pancreatic ducts and common bile duct probed and dilated if possible. Any calculi found should be removed. If a sphincterotomy is deemed advisable, it is done at this time—transduodenally, but a successful alternative is the insertion of a long-armed T tube into the common duct down through the sphincter which has previously been dilated under direct vision. My own experience with sphincterotomy has been most disappointing. Several recurrences of pancreatitis at various intervals after the operation have occurred, even though the sphincter remained open. Most of these individuals, to be sure, did not follow a prescribed regime, but to be a successful form of therapy, sphincterotomy cannot pass the test if it is successful only under certain definite situations.

These procedures constitute the basic attack on chronic pancreatitis. No other treatment is advocated until the basic operation has been performed. If there is a subsequent return of symptoms, each individual case must be reevaluated. If there is further evidence that the biliary and pancreatic ducts are at fault, a choledochojejunostomy is done to completely separate the two ductal systems. There have been instances of prolonged relief after this operation and, as a result, the operation is beginning to be employed earlier in the disease, even as a primary procedure, when the gallbladder and common duct are negative at the early exploration. The results of using choledochojejunostomy as a primary procedure cannot as yet be evaluated, but there are several reports in the literature which show its value in a few small series of cases.

At the time of the second operation, after failure of the biliary operations, and if the disease process is limited to the tail or body and tail of the pancreas, a distal pancreatectomy is performed. A distal pancreatojejunostomy is then done provided the pancreatic duct is dilated, obstructed at the proximal end, and if an injection of secretin causes a rise in the intraductal pressure. In this manner, free pancreatic drainage is reestablished even though in a retrograde manner.

There are certainly times when a caudal pancreatectomy and pancreatojejunostomy should be done as a primary procedure, but it is preferred to employ it only for localized pancreatic disease, and then only if the biliary system is negative or has been corrected surgically at a previous operation.

This conservative approach simply means that one is loathe to resect pancreatic tissue unless it becomes necessary, because the organ has remarkable regenerative powers. Nevertheless, direct attacks on the pancreas are imperative if the initial biliary surgery has been unsuccessful. Unfortunately, the cases which present distal localized pancreatitis are not many. In the majority of the cases, the entire gland is involved with the disease, and the only direct approach left is a radical pancreatoduodenectomy, removing most or all of the pancreas. One is not anxious to do this procedure except as a last resort because it is a difficult operation and carries a high morbidity and mortality.

Rather than do the radical pancreatoduodenectomy, some consideration must be given to some of the indirect approaches to the disease. A gastric resection with or without vagotomy may be tried, or a lower thoracic sympathectomy and splanchnicectomy done. This latter procedure may finally relieve the pain and arrest the symptoms, but the same result has also been achieved with a celiac ganglionectomy. A stomach resection for pancreatitis has not been done except as a part of a more radical procedure, for its use as a corrective procedure stifles pancreatic secretion rather than give it free access to the intestinal tract and it, alone, cannot be counted upon to relieve pain.

This then is the sequence of operations for chronic pancreatitis. Anyone, or all of them, may eventually correct the symptoms, but at times none of them will. The tragedy of pancreatitis lies in those patients who still suffer after having had all of the available procedures. A cordotomy is all that is left, and this procedure seems too radical for a patient who may still have years to live.

Some of the long-standing cases of chronic pancreatitis will progress to calcification of the gland itself. Our experience with these cases is not good. An indirect approach to this disease is preferred rather than a direct one, since pain is the predominant factor in this situation and internal secretion is still usually active. If the symptoms fail to stop after adequate biliary surgery we next perform a splanchnicectomy and sympathectomy or a celiac ganglionectomy. A partial or total removal of the pancreas is done only after failure of the other procedures.

CARCINOMA

Experiences in surgery for carcinoma of the pancreas and neighboring areas have not been encouraging. Early in 1940 we developed a great deal of enthusiasm for pancreatoduodenectomy in carcinoma of the head of the pancreas, but after doing thirty such operations, our enthusiasm has gradually been supplanted by a sense of defeatism. Nevertheless, the procedure is done when the opportunity arises as the results are favorable if the carcinoma is in the ampulla, and it is also theoretically possible to eradicate all of the disease in carcinoma of the head of the pancreas.

When a carcinoma of the head of the pancreas is found at laparotomy, its location is immediately determined, the extent of the disease, its fixation and the state of the lymph nodes. If there is no evidence of excessive spread or of obvious metastases the resection is done as radically as possible. If the patient is inoperable some sort of biliary-intestinal anastomosis is performed as palliation. As yet we do not have a five year survival for carcinoma of the head of the pancreas, although eleven of these cases are still living—the longest four years after operation. We have two cases of ampullary carcinoma who are living five and six and a half years, respectively, after the operation.

Not much time is spent in getting biopsies of the pancreas. Obvious lesions of the ampulla or pancreas are, of course, biopsied. However, biopsies of the pancreas are so frequently erroneous, that they have been more or less abandoned. If one believes in pancreatoduodenectomy he must be prepared to do it occasionally for benign disease. Only in this way will some early cases be obtained. Cattell has stated that when a biopsy of the pancreas is positive that the patient is probably incurable. It is felt that this statement is essentially true, yet we continue to give the patient the benefit of a radical operation if they can stand it. We are encouraged with the results of the operation for carcinoma of the ampulla and feel that here it is the procedure of choice. We have poor results, however, with carcinoma of the common duct since this particular tumor spreads rapidly and metastasizes early.

Some people feel that a palliative procedure gives as good if not better results than a radical one. I am not prepared to argue this point. It seems that the morbidity and the mortality of pancreatico-duodenectomy is now low enough so that patients should have the chance for a cure, no matter how remote, and that as yet the operation should not be abandoned. The technic of the operation is more or less standardized, but one serious drawback to the operation is the inability of any one person to acquire enough experience with the operation to really become proficient at it. Nevertheless, that is no contraindication. A careful exploration should be done to determine operability, as it is needless to do such a radical operation when the entire tumor cannot be removed. A great deal of dissection can be done and the duodenum, pancreas and stomach mobilized before burning any of the many bridges and, at times, the tumor will seem entirely resectable before it is discovered that there is involvement of the superior mesenteric artery or the portal vein. If the tumor is operable, the operation is performed. Microscopic examination in too many instances reveals perineural spread or node metastasis, even in those cases in whom it was thought there was the best chance of cure. Partial or even total pancreatectomy is technically feasible and compatable with life. It is, nevertheless, a difficult operation and one carrying a high morbidity and mortality. Once it is performed it leaves a patient who will need more or less constant medical attention, including management of diabetes, weight control, electrolyte balance and maintenance of proper nutrition. Thus, if one is to accept the challenge of doing this operation which contains the basic concept of radical cancer surgery, one must accept the responsibility of caring for these patients the rest of their lives.

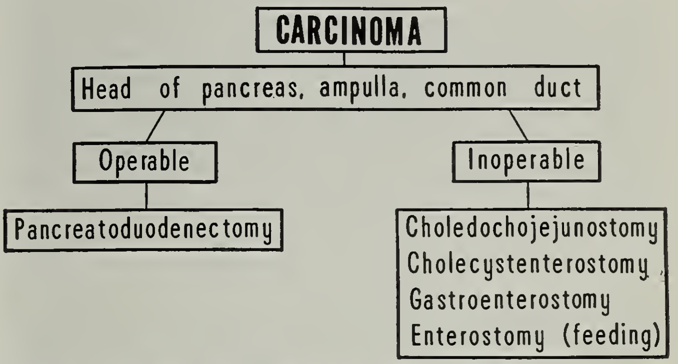


Fig. 4. Diagram showing operative treatment for malignancies of the ampullary region, pancreas and common bile duct.

Since the percentage of cures is so low, due to early spread of the tumor, it is logical to question whether one can ever cure one. If there is perineural spread of the tumor there is probably no cure, but when there are metastases to lymph nodes the case is not quite so hopeless. Our attempts at radical surgery, in the past have produced many nodes that were positive for tumor, yet occasionally there are only one or two such nodes per patient. Curability here, too, is low. However, as one does a more radical procedure which will remove the secondary groups of nodes as well as the primary ones, it is felt there is a better chance of eradicating the disease. We are now doing a much more radical procedure than the classical Whipple operation, but results are of too short a duration to be of value. The work of Evans and Ochsner on the lymphatic spread of cancer of the pancreas has prompted us to take this more radical approach to a disease that is stubbornly resistant to cure.

ISLET CELL TUMORS

This report would not be complete without some mention of a type of tumor in which surgery can be of value. Islet cell tumors are not common, yet they occur frequently enough so that most large hospitals have accumulated a few dozen cases. The chief problem in handling these cases is in diagnosis. Many of these patients have had Burr holes for intracranial lesions, been committed to psychiatric institutions or have submitted to multiple medical workups before the correct diagnosis is made. Once the diagnosis is made, however, the proper treatment is removal of the tumor. When the small tumor can be found, usually in the body or tail of the gland, its removal is relatively simple. If a tumor is not found after a careful search, a removal of the body and tail of the gland—the part to the left of the superior mesenteric artery—is indicated. The tumor usually will be found in the pancreatic parenchyma. Occasionally, though, no tumor will be found, and if symptoms persist it is necessary to go back and remove more of the gland. Even though a total pancreatectomy has been done, and whether or not a tumor has been found, relief from the hypoglycemia usually follows.

The presence of the tumor explains the hypoglycemia, but when no tumor is found, the relief is hard to explain. It could be on the basis of the elimination of the hyperglycemiant hormone glucagon, a substance which is secreted by the A cells of the islands of Langerhans; or it could be on the basis of an abnormal ratio between the A and B cells in the islands themselves. Hyperplasia of the islands may manifest itself as an increase in the number of B cells in islands that are normal in number and size. There are normally 70 per cent B cells, but this amount may increase to 95 per cent in certain cases of hypoglycemia. The ratio between the A and B cells may have significance in the surgical treatment of hypoglycemia.

After a surgeon has done a distal pancreatectomy and finds no tumor, the pathologist should examine the specimen carefully. An increased proportion of A cells suggests the presence of an adenoma, or insuloma, in the remaining tissue. Removal of the rest of the gland is indicated if there has been no relief from symptoms. A preponderance of B cells signifies a functional hyperinsulinism, warranting a second operation only if relief has not been obtained by the first operation. A normal A:B cell ratio would lead one to be less radical if a second operation became necessary.

Zollinger has discovered recently a non-beta cell adenoma in two cases who had refractory peptic ulceration. Removal of these tumors corrected the extreme hyperacidity present. I have had no experience with this type of tumor, but it is an interesting concept.

Thus, there are many operations direct and indirect which can help a patient with pancreatic disease. Advancement has been made to the point at which one can almost recommend the proper procedure in advance in all cases, but with results as poor as they have been in the past, it must be admitted that all of the answers are as yet not known. It is only in repeated assaults at trying to improve on a bad situation that some real help may eventually be offered to patients with pancreatic disease.

There is nothing original in our approach to pancreatic surgery. We are merely doing our best to take advantage of many forms of treatment, since we have so many cases on which to use them. We try to assess our results frequently and in evaluating our success or failure, we try to change our concept of treatment accordingly. As Lord Moynihan said: "I have gathered a posie of other men's flowers, and nothing but the thread that binds them is my own." So it is with us as we keep changing our basic plan to fit a given disease. It falls to a few individuals that the sum total of experience is not lost, but bound together by the thread of wisdom and judgment.

SUMMARY

1. Experience at the Medical College of Virginia relative to surgery of the pancreas has been set forth.

2. The treatment of acute pancreatitis has been non-surgical, in most instances, and carried out according to a plan worked out in dealing with over 700 cases.

3. The treatment of chronic pancreatitis is surgical and individualized in each case.

4. Radical pancreatoduodenectomy produces good results in carcinoma of the ampulla; fair results in carcinoma of the common bile duct, and poor results in carcinoma of the head of the pancreas.

5. Islet cell tumors are to be removed when found, and pancreatic resection performed when they are not found, the extent of the resection depending on the ratio of A and B cells in the islets.

1200 East Broad Street

Acute Arthritis

Problems in Diagnosis and Management

JOHN H. KILLOUGH, M.D., *Columbia*

ACUTE ARTHRITIS may be one of the most painful and disabling diseases occurring during the productive years of life. To shorten the period of morbidity and when possible to prevent progression to permanent loss of articular function, the physician must make a prompt and correct diagnosis so that he can establish the proper course of therapy.

Due to the relative frequency of occurrence, one is inclined to consider in adults with acute arthritis, first, rheumatoid arthritis, then traumatic arthritis and possibly rheumatic fever. From this point on, however, most experience some difficulty and it is in this area that clinical acuity is most demanding. Rapid consideration of the patient and the administration of an adrenocorticoid preparation to the remaining acute arthritides may not only delay the patient's recovery, but also may be disastrous.

Among the remaining forms of acute arthritis, the two most common are gout and gonococcal arthritis. The true incidence of neither of these is known, but it is estimated that from 3 to 5 per cent of patients seen with rheumatism in large clinics have gout and 2 per cent have gonococcal arthritis. If cortisone is administered to the patient with gout, it may produce a remission of symptoms but it is not the drug of choice and should be tried only if the patient should prove refractory to other therapy. In gonococcal arthritis, cortisone administered, by interfering with the delimiting factors of the inflammatory reaction and permitting continued destruction of the articular surface, may lead to permanent loss of joint function.

The initial diagnostic problem is not always as simple as many texts would indicate. The elimination of traumatic arthritis by means of history and physical examination should be easy. Strict adherence to the modified Jones criteria for the diagnosis of rheumatic fever should aid the recognition of the 1 per cent of patients with acute rheumatic fever and arthritis. However, the identification of the cases of gout and cases of gonococcal arthritis from among the 30 to 40 per cent of patients with rheumatoid arthritis may at times be extremely difficult. In the late stages when therapy may offer little hope of restoration to normal the differentiation is frequently obvious. This is not the stage at which diagnosis is urgent and will not be considered.

During the early attacks of gout and rheumatoid arthritis and acute gonorrheal arthritis, the similarities of these diseases may be almost as great as the differences. For example, migratory manifestations may be present with each. The age of onset is not entirely reliable for there is considerable overlapping. Fever is present in each disease during acute manifestations. Roentgenograms may be entirely negative. And the recent history or findings of a gonococcal infection may or may not be of significance. It is only through the systematic appraisal and quantitation of the various features that one may reach a defensible impression.

The age at onset of rheumatoid arthritis and gonococcal arthritis is most frequently the third and fourth decades of life. Gout has a tendency to manifest somewhat later, appearing generally after the age of 35 years. Information regarding the sex distribution may be helpful, particularly with regards to gout. About 98 per cent of the patients with this disease are males. Gonococcal arthritis is predominately a disease of males also, and rheumatoid arthritis is predominately a disease of females. In each of the latter the sex ratio is approximately three to one. As for the onset itself, there are some helpful differences. The acute arthritis of gout may be precipitated in the matter of minutes to a few hours and without previous indications of a lack of well being. Rheumatoid arthritis, by contrast, is frequently preceded by prodromal symptoms. The patient may have a series of vaguely defined complaints such as paresthesias in the extremities, lassitude, migratory aches, anorexia and weight loss before the beginning of specifically localized joint symptoms. Gonococcal arthritis often is not initially suspected, not because of vague symptomatology, but because it may begin much like rheumatic fever. Pain appears in several joints (80 per cent of cases), and then migrates to other joints before finally localizing and staying in one or two joints at most. In approximately 25 per cent of the patients with typically infective arthritis of this type, the gonococcus can be recovered by joint aspiration and the utilization of adequate culture methods. In the remaining 75 per cent the organism cannot be isolated and it is not yet certain whether the organisms originally reach the joint and are sterilized or whether the arthritis is a sensitization reaction to some antigenic fraction of the gonococcus. Of equal importance to note is the fact that immediately following the gonococcal infections a small percentage of patients continue into a clinical picture identical with rheumatoid arthritis and are unresponsive to antibiotics and

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Presented at the 98th Annual Session of the Missouri State Medical Association, St. Louis, April 8-11, 1956.

chemotherapy. These are not instances of antibiotic resistance but are examples of rheumatoid arthritis being precipitated by a stressful situation.

The sequence of joint involvement may be of considerable aid in diagnosis. The great toe is affected in 75 per cent of first attacks of gout and eventually in more than 96 per cent. The ankle or foot is involved in about 20 per cent and the knee in 10 per cent. Gonorrheal arthritis tends to involve large joints such as the knees and ankles and less frequently the joints of the hands and feet. Rarely does it involve intervertebral, sternoclavicular or temporomandibular joints. Rheumatoid arthritis most frequently involves the knee, fingers (interphalangeal and metacarpophalangeal joints), wrist, ankle, foot, elbow and shoulder in this order. Also rheumatoid arthritis alone has a tendency to be symmetrical.

A search for subcutaneous masses may be quite helpful. Their absence in gonorrheal arthritis is universal. In rheumatoid arthritis subcutaneous nodules are found in from 5 to 24 per cent of patients and are present usually in areas subjected to pressure. The commonest site is on the extensor surface of the arm near the elbow, but they may be found over the patella, spinous processes of the vertebrae and along the tendons of the fingers and toes. Most characteristically the tophi of gout are found on the helix or antehelix of the ear, but they may be found in the olecranon bursa, prepatellar bursa or about the tendons of the ankle, wrists, fingers or toes. They are best distinguished from other nodular lesions by opening and demonstrating microscopically the presence of sodium urate crystals. In initial attacks only about 2 per cent of patients with gout will demonstrate tophi, but after repeated attacks as many as 50 per cent will have these lesions.

In the early stages of these diseases, there are no pathognomonic signs to be demonstrated by radiography. The patient with gout will show no early changes although later 30 per cent of patients will show punched-out bony erosions. Generalized osteoporosis, which may be present with advanced rheumatoid arthritis, is always lacking in gout. Similarly, radiographic studies are of no value in early rheumatoid disease. In gonococcal arthritis, however, roentgen studies may be positive showing a spotty and ground-glass appearance of atrophy in surrounding bones. Perhaps the chief characteristic of the gonococcal infection is the rapidity of destructive change.

Serous conjunctivitis is absent in rheumatoid arthritis and gout. However, with the exception of Reiter's syndrome, conjunctivitis is more common in gonococcal arthritis than in any other form of joint disease. Twenty per cent of patients will have this complication. The conjunctivitis may appear and disappear before the onset of arthritis or it may occur concurrently. Generally it is a benign complication but in a small proportion may progress to irido-cyclitis and permanent damage to the vision. The conjunctival exudate is always sterile. Rarely ocular lesions other than conjunctivitis occur in gout and rheumatoid arthritis.

The possibility of gonorrhea being a coincidental complication to the other acute forms of arthritis has been mentioned. When gonococcal arthritis occurs as a sequel of urethritis, cervicitis and such, there is usually an incubation period from 10 to 20 days, and 80 per cent of cases occur within five weeks. There have been, however, rare cases reported as late as twenty years after the primary infection. In these individuals the arthritis has been precipitated by pelvic surgery or instrumentation.

Among the specific laboratory procedures available, the culture of gonococci has been mentioned and there remains the gonococcus complement-fixation test. The latter is positive in 80 per cent of patients with gonococcal arthritis. The procedure is not an easy one and hence is not available in many laboratories. If one should utilize this test, one should remember that it is frequently negative for the first ten days, that it should be repeated three times at ten day intervals and that a changing titer is most significant. In the use of serum uric acid levels for the diagnosis of gout, one must know the normal range for one's particular laboratory. In general, serum levels exceeding 6 mg. per cent are accepted as indicating gout. However, one must rule out other diseases such as leukemia, polycythemia, nephritis and various toxic agents which in themselves elevate uric acid values. Serum uric acid levels in gout may fluctuate considerably and this is particularly true of the early acute attacks. For this reason, repeated determinations are indicated and if abnormal values are not present, one should not entirely exclude gout as a possibility for the elevation becomes definite and more constant only with repeated episodes. There are no specific laboratory tests for rheumatoid arthritis, but since early lupus erythematosus may closely resemble this disease, L.E. cell preparations should be studied.

Among the more routine laboratory procedures the leukocyte count may be elevated and shifted to the left in acute attacks of each of the three forms of arthritis under discussion. Generally in gonococcal arthritis alone does it reach values of 20,000 to 25,000. Anemia is not a related feature of gout or gonorrhea, but is suggestive of rheumatoid arthritis. The sedimentation rate is of no differential value being elevated in all three. Urinalysis is generally normal. Electrocardiographic changes have not been attributed to gout; whereas, nonspecific T-wave changes have been described in rheumatoid arthritis and gonococcal arthritis. In each of the latter, the electrocardiographic changes in acute attacks have tended to confuse the diagnosis with rheumatic fever.

After the establishment of the correct diagnosis through use of these various clinical observations and laboratory studies one is confronted with the complex problem of therapy. Of the three, the treatment of gonorrheal arthritis is the simplest. Rest of the involved joint, by splinting if necessary, and penicillin should be effective. To be borne in mind is the fact that treatment must be more intense and prolonged than for the genitourinary manifestations. An adequate course for most patients is one million units of penicillin daily for ten days. Should a patient prove resistant to penicillin, fever therapy is indicated.

For the acute attacks of gout, colchicine is the drug of choice, being effective in more than 95 per cent of cases. The dosage regime is one milligram followed by 0.5 milligram each hour until either relief is attained or diarrhea intervenes. The total dosage required is generally is the range of 4 to 8 milligrams. In the small group of failures, ACTH should be used. During, as well as after, the acute phase, the patient should maintain a high fluid intake and be placed on a low purine-high carbohydrate diet which does not contain enough calories to be fattening. Whether treatment with a uricosuric agent should be initiated and continued indefinitely after establishment of the diagnosis must be decided on an individual basis. Colchicine is not a uricosuric drug. Probenecid is the drug of choice for this action and is given in the dosage range of 1 or 2 grams daily. Salicylates are also uricosuric but one must note that when salicylates and probenecid are combined the uricosuric action of both drugs is lost. Also older persons are apt to develop mental confusion and signs of salicylism if salicylates are administered over prolonged periods to increase uric acid excretion.

The management of the patient with acute rheumatoid arthritis may be the most difficult of all. For the termination of the acute episode cortisone and related compounds and corticotrophin are effective. The principle of giving the smallest effective dose should be observed carefully and indeed a level just short of that giving the best response is indicated. If treatment is to be prolonged, trials with more conservative methods should be carried out in the hope that these potent hormonal agents with their many undesirable side effects can be avoided.

It is obvious from this discussion that the problems in diagnosis and management of acute arthritis are many. The earlier in the course of disease the patient is seen, the more difficult the diagnosis. Unless one recovers the gonococcus organism or obtains a definitely abnormal serum uric acid level, the differential diagnosis of gonococcal arthritis, gout and rheumatoid arthritis involves the careful weighing of many points, none of which in itself is conclusive.

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Diseases of the Left Colon

Advances in Surgical Treatment

RICHARD A. TWYMAN, M.D., *Kansas City*

A SURVEY OF THE results of surgical treatment of certain diseases of the left colon shows that progress has definitely been made in the last decade along certain lines, such as the decrease in surgical mortality rate, increase in resectability rate and the epic contribution of Orvar Swenson in the treatment of Hirschprung's Disease.[27, 31] However, there is vast room for improvement in the earlier detection of malignant disease and operative management of acute intestinal obstruction. It is the intent of this paper to outline briefly what some of these contributions have been, and point out specific instances from personal experience, as well as a survey of the literature, where better results can be obtained.

As far as surgical technic is concerned, the "Swenson operation" represents a major advance[25, 26, 27, 31] in the treatment of what previously had been a poorly understood disease. Resection of the aganglionic segment of rectosigmoid with anastomosis between the proximal colon and rectal stump has given excellent results in all hands with minimum mortality. The routine precaution of having frozen section biopsies examined by the pathologist before anastomosis is made will eliminate most of the poor results. It is important also to rule out functional and organically obstructed megacolon before the Swenson procedure is undertaken. Urologic survey is also essential because of the frequent association of the same problem involving the detrusor muscle of the bladder and ureter. When preliminary colostomy has to be done, I would recommend it be placed near the hepatic flexure. Recent personal experience has shown the advantage of leaving the left colon entirely alone, because the upper limit of aganglionic involvement may sometimes be located near the splenic flexure, and future dissection in an unoperated area is greatly facilitated. Unanswered as yet are the questions of impotence and residual urinary symptoms. However, there is firm experimental and clinical proof of the value of a now time tested procedure for the correction of aganglionic megacolon.

Unlike the agreement concerning the previous problem, there is a marked lack of uniformity regarding the choice of operation for cancer of the sigmoid, rectosigmoid and upper rectum.[3, 4, 5, 7, 8, 9, 10, 18, 19, 24, 29, 30] C. W. Mayo[34] feels that low anterior resection is still the operation of choice for most lesions found 6 cm. or more above the dentate margin. Waugh[24] prefers an abdominal perineal resection with sphincter preservation. Other regard the Miles[19] abdominoperineal procedure as being superior. The average five year survival rate in most of these series is about 50 per cent; the prognosis being about 30 per cent for five year cure when nodal involvement has been proven, and about 70 per cent when no metastatic lymph glands have been found. With an operative mortality of 3.5 to 9 per cent being unchanged for many years, plus little improvement in the survival rate, other fields must be explored. Means of preventing local recurrence, such as tape ligation[4] of the colon and vessel ligation before manipulation and resection, have not altered the outlook appreciably. Limits of resectability may have been reached, and it must be remembered, there is a significant rise in operative mortality when the scope of the resection (colectomy) is increased.[30]

There have been numerous well publicized advances in the fields of fluid and electrolyte balance, blood transfusions, anesthesia,[21] antibiotic[1, 28] therapy and management of coexisting medical problems, adding to the surgical risk. Nevertheless, the high recurrence (50 per cent) rate of colon carcinoma and high death rate (more than 33,000 yearly) should discourage complacency and stimulate further investigation.

Earlier diagnosis is necessary. There was a delay of 7.7 months noted by Cattell[7] in 28 per cent of his patients with carcinoma of the colon. One of seven had hepatic metastasis at surgery, blood vessel invasion was noted in 31 per cent and lymph node involvement in 27 per cent. Others have found about the same incidence.[10] When one realizes that two thirds of the cancers of the colon are within reach of the examining finger or proctoscope, certanly more of these lesions can be detected early. Routine physical examination, including proctosigmoidoscopy was done by Enquist and State on 3,364 asymptomatic persons over 45 years of age. Rectal and colonic adenomatous tumors were found in 17.2 per cent (one of six), 5.7 per cent had occult bleeding. When such lesions are discovered, barium enema-air contrast studies must be done for additional lesions, which are found in more than 4 per cent. At surgery, before resection is undertaken, palpation of the intestine and endoscopy through multiple colotomy incisions will result in the finding of other[29] polypi and possible prevention of carcinoma arising in satellite polyps. Cytologic

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Presented at the 98th Annual Session of the Missouri State Medical Association, St. Louis, April 8-11, 1956.

measures will also improve diagnostic accuracy in doubtful cases.[2]

Although with the advent of antibiotics, there has been an increasing trend to radical surgery in the elective cases, most surgeons prefer multiple stage procedures for the treatment[20] of acute intestinal obstruction. Proximal colostomy prior to resection is done by the majority of surgeons, although Chase and Ferguson[16] report a recent series of seventeen acutely obstructed cases, with only one death following primary resection. However, each of these cases calls for careful surgical judgement in which all factors must be evaluated. Certainly the availability of better anesthesia, intubation, blood banks and antibiotic protection will allow the surgeon additional latitude in special situations, but none of these will improve tissue friability in a distended bowel. Another vital factor is that of impaired blood supply. Nemin and Hawthorne[21] noted a mortality rate of only 1 per cent for cases of intestinal obstruction not complicated by strangulation or carcinoma; however, where these complications existed, the rate rose to 25 to 30 per cent in most series. There has been a steadily declining mortality rate due to intestinal obstruction and hernia from 10.5 deaths per 100,000 population in 1929 to 5.8 per 100,000 in 1950, an overall reduction[35] of 43.2 per cent. Of the 8,894 deaths in 1950 from these causes, 10.7 per cent (960) occurred in the first year of life, most of them presumably due to atresia and malrotation problems. No other figure is comparable until the 70 to 74 age level is reached, where 12.3 per cent died of these causes. Increased knowledge of obstructions in the newborn, as well as of geriatric problems should yield better results in the future.

The surgical treatment of diverticulosis is limited to its complications.[12, 13, 15] These are perforation, fistulae, chronic stenosing changes with obstruction, bleeding and inability to differentiate from carcinoma. There is no controversy regarding treatment, or great difficulty in diagnosis of the first three of these. However, the latter two conditions can present a difficult diagnostic and therapeutic problem.

Bleeding was found to occur in 324 of 2,896 cases of diverticular (11 per cent) disease by Noer,[23] who reviewed the series of twenty-eight different authors. While the bleeding is usually occult to mild in the majority of cases, many have reported surgical emergency procedures[22, 23, 32, 33] as a result of massive hemorrhage in which only diverticular disease was found. Usually the localized zone of bleeding can not be pin pointed, so that a wide left segmental resection is necessary. Although diverticula occur in the transverse and right colon, the incidence is so low that the proximal resection usually can be limited to the left side in the absence of other findings. Distally, the disease rarely involves the rectosigmoid or rectum. The present attitude, therefore, with this problem, is early elective resection.

The differentiation between carcinoma and diverticular disease may be fairly simple or extremely difficult.[12, 13, 14, 22, 23, 32, 33] Persistent bleeding, where the colon x-ray shows only diverticula, should always make one suspicious of carcinoma, since there may be coexistence in from 9 to 20 per cent. Even at surgery it may be impossible to distinguish these with certainty;[14, 32] in this situation, resection is clearly indicated, not biopsy. Colcock[32] has enumerated the differential diagnostic features of each from a comparision of fifty cases of diverticulitis and fifty cases of carcinoma as follows.

Diverticulitis	*Carcinoma*
Age and Sex Same incidence	
Pain 74 per cent	26 per cent.
Tenderness Usually present	Variable.
Bleeding 22 per cent	64 per cent.
Nausea, vomiting, chills, and fever	Constipation.
Longer duration of symptoms.	
Palpable mass 25 per cent	25 per cent.
Laboratory data and proctoscopic—	No aid.
X-ray (definite diagnosis) 58 per cent 14 per cent showed fistula and perforation.	76 per cent.
Complete obstruction 10 per cent	2 per cent.
At surgery, 40 per cent perforation and abscess	6 per cent.

But the exact character was not clear in many until pathologic study was completed.

Except under favorable circumstances, stage operations with proximal transverse colostomy is more favorable than primary resection. It is unwise to close any colostomy, without subsequent resection, even though all symptoms have disappeared as more than 50 per cent of these will recur. Furthermore, a long waiting period is unwise if there is the slightest doubt about the possible coexistence of carcinoma. Therefore, except in prohibitive surgical risk cases, where the colostomy should be considered permanent, resection should be done.

SUMMARY AND CONCLUSIONS

A brief survey of some of the problems encountered in surgery of the left colon has been made. There is little difference in the five year survival rates of patients treated by different methods for lesions in upper rectum and rectosigmoid. Some of the advances in the treatment of intestinal obstruction have been outlined. The difficulty in the differential diagnosis of carcinoma and diverticula have been reviewed. The greatest room for improvement would seem to be earlier diagnosis. This can only come by continuing to emphasize the need for intensive education of the lay public and physician.

4635 Wyandotte.

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Gonorrhea

Treatment With a Triple Penicillin Combination

HOLMAN R. WHERRITT, M.D.; HARVEY E. ALTHEIDE, M.D., AND NICHOLAS D. DUFFETT, Ph.D., *St. Louis*

THE CONTROL of gonorrhea during the last few years has posed a number of significant problems. One of these problems is that of ping pong gonorrhea and its role in the propagation of the disease. Since it has been impossible to prevent early reexposure of treated gonorrhea patients, it seemed that by utilizing a triple combination containing a repository form of penicillin, such patients might be protected during the time required to return the contacts to treatment.

This study was designed to determine the effectiveness of two formulas, each containing a combination of three penicillin salts, in the treatment of gonorrhea. The original formula identified as Panbiotic provides 300,000 units of buffered potassium penicillin G, 300,000 units of procaine penicillin G and 600,000 units of benzathine (N,N' dibenzylethylenediamine) penicillin G per 2 ml. volume. The new formula is the same as the original formula except that procaine penicillin G was replaced by the same number of units of dibenzylamine penicillin G.

Rein *et al.*[1] in a report read before the June 1953 meeting of the Society for Investigative Dermatology observed that in fifty patients receiving 2 ml. intramuscular injections of the original Panbiotic formula, the average penicillin blood concentration was 3.185 units at the end of the first hour, 0.918 units at the end of twenty-four hours, 0.033 units at six days and 0.023 at fifteen days. Significant penicillin blood concentrations were obtained in all but one blood sample taken during the first six days and in the majority of blood samples taken between the sixth and fifteenth days. These authors also found that among fifty-four patients receiving 2 ml. of benzathine penicillin in one hip and 2 ml. of Panbiotic in the other, the number and severity of reactions with local pain and tenderness were somewhat greater in the case of the former product. Ninety-four patients receiving only Panbiotic failed to develop any untoward reactions.

Man *et al.*[2] in a study of dibenzylamine penicillin G indicated that the parenteral injection of 300,000 units of that product produced a somewhat lower average serum concentration at one hour than that observed after the injection of the same dosage of procaine penicillin G, but the duration of the average serum concentration appeared to be somewhat longer following injection of the former product. No evidence of sensitivity to or toxicity of the drug was noted in the 274 patients treated, nineteen of whom received the drug parenterally.

MATERIAL AND METHOD

The study initiated in September 1953 included males presenting clinical and laboratory evidence of gonorrheal infection. At the time of the first visit a smear was examined microscopically and material cultured for Neisseria Gonorrhea. Each patient was selected on the basis of the microscopic findings.

Twenty-three cases with a negative smear and positive culture were also included. A number of persons were included more than once due to repeated infections. Each patient received 2 ml. or 600,000 units of Panbiotic intramuscularly in the upper outer quadrant of the gluteal area. In this manner 595 infections were treated with the original formula, and 754 infections with the new formula.

Patients were asked to return twenty-four hours, forty-eight hours and five days following treatment. At each visit they were examined for evidence of a urethral discharge. Smears and cultures were made on the first two visits regardless of the presence or absence of clinical symptoms and on the last visit only if clinical symptoms were present.

RESULTS

The initial laboratory findings are presented in table 1. Two hundred sixty-eight (45.04 per cent) patients treated with the original Panbiotic formula and 291 (38.6 per cent) treated with the new Panbiotic formula failed to return for any kind of check up (table 2).

Cure was based entirely on laboratory findings, presented in table 3. Seven hundred seventy cases developed negative smears and cultures following treatment representing a cure rate of 98.2 per cent. Although some of the fourteen cases presenting positive laboratory findings during the post-treatment follow-up period were probably reinfection, all were included as possible treatment failures (tables 4 and 5).

Reactions to both Panbiotic formulas were negligible. During the early use of the original

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From the St. Louis Health Division, St. Louis.

(H. R. W.) Veneral Disease Control Officer, Prevention and Control Center, Department of Public Welfare, Division of Health. (H. E. A.) Director of Clinical Activity, Prevention and Control Center. (N.D.D.) Director, Public Health Laboratories.

Material supplied by Bristol Laboratories, Syracuse, N. Y. The trademark for the triple penicillin combination is Panbiotic.

Panbiotic formula, patients complained of immediate pain on injection. When special precautions were taken to use a dry syringe, such reactions ceased to occur. No such reactions occurred during the administration of the new formula. So far as other reactions are concerned, only two came to our attention: one patient who received the original formula complained of a localized induration and tenderness while the other patient who received the new formula complained of mild itching about the neck and shoulders.

DISCUSSION

As noted in table 3, the new formula produced a 98.2 per cent cure rate and the old formula a 98.1 per cent cure rate. These cure rates compare favorably with rates obtained in the treatment of gonorrhea with other penicillin preparations.

No attempt was made to explain treatment failures. Obviously, the questions of reinfection, relapse, pencillin resistance, inadequate blood concentration of the drug and such would have to be answered to explain the positive laboratory findings in the small number of failures in the study.

SUMMARY

1. A total of 1,349 cases of gonorrhea were included in this study based on a positive smear or culture; 754 received 600,000 units of the new formula of Panbiotic and 595 received 600,000 units of the original Panbiotic.
2. Of the 784 (58.4 per cent) cases followed after treatment, only fourteen presented positive laboratory findings and were considered as failures. The cure rate of those followed was 98.2 per cent.
3. No serious toxic manifestations were observed. Only two minor reactions occurred.

TABLE 1

THE INITIAL LABORATORY FINDINGS

Laboratory Results	*Panbiotic Original*	*Formula New*
S+/C+	499	651
S+/C Unsatisfactory	11	5
S+/C–	68	92
S–/C+	17	6
Total	595	754

S smear
C culture

TABLE 2

NATURE OF FOLLOW-UP AND THE NUMBER FOLLOWED

Drug (Panbiotic)	*Number Persons Treated*	*Number of Infections*	*Post-treatment Follow-up per Infection in Hours*			*Number of Cases Failing to Return for Follow-up*
New Formula	691	754	24	48-60	120+	291
			344	239	123	
Original Formula	538	595	240	152	112	268

TABLE 3

FOLLOW-UP PROCEDURE—LABORATORY CURES AND FAILURES

Drug (Panbiotic)	*Number of Infections Followed-Post-Treatment*	*Number Developing Negative Laboratory Findings*	*Number With Postive Post-Treatment-Laboratory Findings*
New Formula	463	455	8
Original Formula	321	315	6

TABLE 4

LABORATORY FAILURES ON ORIGINAL FORMULA (Panbiotic)

	Initial	*Post-Treatment Visits in Hours*				
Patient	*Visit*	24	48	72	96	120
E. W.	S+/C*	—	—	S–/C+		
A. R.	S+/C+	S+/C+	S–/C–			
C. J.	S+/C+	S–/C+	S–/C–			S–/C–
I. W.	S+/C+	—	S–/C–			S+/C–*
R. J.	S+/C+	—	S–/C–	—	—	S+/C–
T. M.	S+/C+	S–/C–	—	—	—	S+/C–

* Time of reinterview—denies additional contacts
S Smear
C Culture

TABLE 5

LABORATORY FAILURES OF NEW FORMULA (PANBIOTIC)

	Initial	*Post Treatment Visits in Hours*					
Patient	*Visit*	24	48	72	96	120	384
M. P.	S+/C+	S+/C–	S–/C–				
D. G.	S+/C+	S–/C–					
A. N.	S+/C+	S–/C+^{v}					
L. B.	S+/C+	S–/C+^{v}					
J. J.	S+/C+	—	—	S+/C+	—	S+/C+$^{v+*}$	
G. D.	S+/C+	S+/C+	—	—	S+/C+		
W. H.	S+/C–	—	—	—	S+/C+^{v}	—	S–/C–
F. H.	S+/C+	—	—	—	S+/C+$^{+*}$		

S Smear
C Culture
V Verification by positive sugar fermentations
$^{+}$ Time of retreatment
* Time of reinterview—denies additional contacts

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Postgraduate Review

Nephrosis In Children

Current Concepts

HENRY L. BARNETT, M.D., *New York*

It is implied frequently that little has been learned about medical kidney disease since the time of Richard Bright. It is true that the cause of nephritis and nephrosis is still obscure—a euphemism used by students of kidney disease and others to mean unknown.[1] The lack of this basic knowledge precludes the attainment of the ultimate goal of prevention or of specific treatment. Nonetheless, and fortunately for the emotional stability of a moderately large group of medical investigators, it can be stated with confidence that a great deal has been learned. My purpose will be to summarize what appear to be some of the more significant recent advances in knowledge and to indicate how these may be applied to the care of children with medical kidney disease.

It is interesting that the number of clinical and laboratory investigations related to nephrosis is far out of proportion to the incidence of the disease. Considering only nephrosis in children, the incidence has been estimated recently, with difficulty, to be something of the order of two to four patients per one hundred thousand of the total population.[2] The explanation for the inordinately large number of investigators who have been attracted to study various aspects of nephrosis probably stems from the striking alterations in metabolism that occur in this disease. It is my view that these investigations have for their final purpose the treatment of patients with nephrosis, or even more importantly, the prevention of it. Until the latter is possible, care of patients with this disease must rest upon judgments which themselves are based too often on tenuous evidence. However, patients must be cared for and, in addition to describing some of the investigations related to nephrosis, I should like to devote attention to the problem confronting the physician in caring for patients with nephrosis.

DEFINITION OF NEPHROSIS

Considerable difficulty still exists in arriving at a satisfactory definition of the different clinical forms of medical kidney disease. In the absence of more precise knowledge concerning etiology, it is my view that such definitions have real value only insofar as they provide a basis for prognosis. The sometimes acrimonious debate between internists and pediatricians concerning the relation of nephrosis or the nephrotic syndrome to glomerulonephritis probably stems principally from the fact that recovery of a child with nephrosis occurs frequently whereas it is rare in adults. It seems clear that this difference in final outcome of what appear to be similar diseases could be due either to differences in response to the same disease occurring at different ages or to differences in the disease itself. The answer to the question implied by this statement is not at hand. Nevertheless, since names given to these diseases do imply prognosis, it seems worthwhile to consider the major concepts which are held currently concerning nephrosis.

There is general agreement that nephrosis, or the nephrotic syndrome, is characterized by intermittent edema associated with proteinuria, with low concentrations of certain plasma proteins, particularly albumin and gamma globulin, and with hyperlipemia.[3] It is agreed also[4] that nephrosis may occur as a complication of various systemic diseases (amyloidosis, diabetes mellitus, lupus erythematosus, syphilis) following renal vein thromobosis, as a result of drug toxicity (tridione and gold salts) or following bee stings or poison oak. It may also occur during the course of chronic glomerulonephritis which was preceded by a recognized attack of acute glomerulonephritis. As defined, the latter occurs uncommonly in adults and rarely in children.

In most instances, however, the disease develops in a child or adult who does not have any of the recognized diseases which might cause it, who has not been exposed to any known toxic agents, and who does not have a history of previous kidney disease. It is in this large group of patients that divergent views are held which can be stated as follows:

1. In all of these patients, nephrosis represents a stage of chronic glomerulonephritis in which the onset of acute glomerulonephritis occurred weeks, months or years before but was not recognized. This view is commonly held by many internists.

2. It is a term applied to two distinct diseases. The first occurs without any, or with minimal, evidences of nephritis (pure or lipoid nephrosis), and is unrelated to glomerulonephritis; the second shows persistent evidences of nephritis and is either a stage of chronic glomerulonephritis with unrecognized onset, or a distinct disease (chronic

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Read before the 98th Annual Session of the Missouri State Medical Association, April 8-11, 1956, St. Louis.

nonspecific nephritis, mixed or nephrotic nephritis, nephronephritis).

For reasons that will be discussed later, it is my belief that the first of these definitions is not supported by known clinical facts and that the differentiation between a pure and mixed form of the disease explicitly stated in the second definition is not useful. In the present view,[3] therefore, nephrosis should be considered:

3. A distinct disease entity which: (a) usually begins insidiously in young children with the onset of edema associated with proteinuria with low concentrations of certain plasma proteins and with hyperlipemia; (b) may or may not be accompanied by transient or persistent hematuria, hypertension or reduced kidney function, and (c) may result in complete recovery or in death from renal insufficiency.

It should be emphasized that the term nephrosis is used here to describe this condition in children irrespective of the presence of evidences of nephritis. In a review by Drs. Lauson and Foreman and myself,[4] the term nephrotic syndrome, rather than nephrosis, was used to designate precisely the same group of patients. Erroneous identification with other definitions makes neither of these two terms satisfactory. For example, the term nephrosis, as used here, may be confused with the older concept of true or lipoid nephrosis which we do not mean and similarly the term nephrotic syndrome may be confused with the concept of the nephrotic stage of glomerulonephritis which, also, we do not mean. Despite these inherent difficulties in terminology, due to lack of knowledge concerning etiology, the term nephrosis appears to be the preferred designation at present. A subsidiary reason for preferring it is that there is now a foundation supporting research in nephrosis* and a "National Nephrotic Syndrome Foundation" would not be difficult to say on radio and television but also would undoubtedly perpetuate mispronounciation of the word syndrome (siń drom-e).[5]

INVESTIGATIONS OF THE CAUSES OF EDEMA, PROTEINURIA AND HYPERLIPEMIA

It is clear that the major alterations in nephrosis involve disturbances in the metabolism of water and electrolytes, protein and lipids, and I should like to describe some of the investigative approaches to an understanding of the cause of these disturbances.

In considering the disturbances in water and electrolyte metabolism, I think it is clear that, at present, the cause of edema in nephrosis is not known. It appears that multiple factors may be involved and present experimental evidence would indicate that the causes are complex.[6] It is simple to state that edema is due to the retention of excess quantities of water and electrolytes, particularly, those contained in extracellular fluid. According to present views of kidney physiology, it is equally easy to say that such excess retention of water and electrolytes may be due either to a decrease in the rate of glomerular filtration, or to an increase in the rate of tubular absorption or to both. As you know, indirect methods are available for estimating these functions. However, a simple example will illustrate the difficulty of determining whether one or the other or both are involved in the retention of excess quantities of water and electrolytes in nephrosis. For instance, if the rate of tubular absorption of water remained constant, a decrease of 0.5 milliliter per minute in the rate of glomerular filtration of water would result in a decrease in urine volume of 720 ml. per day. A similar decrease in urine volume would result from an increase in tubular absorption of water of 0.5 milliliter per minute if the rate of glomerular filtration remained the same.

When it is considered that the rate of glomerular filtration of water is approximately 130 ml. per minute in an adult, the impossibility of detecting such small changes in these rates (0.5 ml. per minute) becomes apparent. In my judgment, even the most elegant experiments designed to distinguish between the relative importance of rates of filtration and tubular absorption of water and electrolytes have failed to answer this question. More attention has been directed recently to examining the action of substances known to effect one or the other of these rates. Important among these observations have been those of Leutscher and his associates[7] who have observed marked increases in the rate of excretion of aldosterone accompanying decreases in sodium excretion in patients with nephrosis. It should be pointed out, however, that the demonstration of such a correlation does not determine cause and effect relationships. It may be that increased aldosterone activity plays a primary role in causing excessive tubular absorption of sodium in nephrosis. However, it could be equally true that increased rate of tubular absorption of sodium, due to some other cause, may be responsible for the increased rate of excretion of aldosterone.

Others have been interested in the possible role of the antidiuretic hormone (ADH) in nephrosis. Some earlier reports had suggested that there may be increased ADH activity[8] whereas other observations failed to support this view.[9] The difficulties inherent in the measurement of the concentration of antidiuretic hormone in blood and urine have been emphasized by Homer Smith.[10] In the belief that previous attempts to assay the concentration of ADH in blood of patients with nephrosis were made with methods which were open to criticism, several years ago we attempted to make such an assay by a method which we believed to be valid.[4] We infused blood from a patient with nephrosis into a child with untreated diabetes insipidus. From previous observations on the recipient, we knew that the patient with diabetes insipidus could not increase the concentration of osmotically active solutes in his urine in response to anything except exogenously administered pitressin. For example, he showed no response to the infusion of hypertonic sodium chloride or to emotional stimuli. Blood which had been removed without emotional disturbance from a peripheral vein of a patient with nephrosis in a stage of massive edema was injected immediately into the child with diabetes insipidus. The procedure was repeated after the patient with nephrosis had had a diuresis induced by corticotropin (ACTH).

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* The National Nephrosis Foundation, Inc., 140 West 58th Street, New York 19, New York.

The effects of injection of blood from the patient with nephrosis before and after diuresis are shown in figure 1. The measurements recorded were made in the child with diabetes insipidus. The most significant data are the concentrations of osmotically active urinary solutes indicated at the bottom of the figure (U_s). From comparison of the changes following injection of the blood with changes following injection of 0.3 and 0.9 milliunits (mU) of pitressin, the ADH concentration in the blood of the donor with nephrosis at the time of increasing edema was estimated to be equivalent to about 0.6 mU of pitressin per 100 ml. of blood. When the assay was repeated during diuresis on the ninth day after the last dose of ACTH, no antidiuretic activity was demonstrated. The concentration of ADH, therefore, must have been less than 0.2 mU per 100 ml. of peripheral venous blood. If confirmed, these preliminary results suggest that the concentration of ADH in blood after a standard period of water deprivation may be higher during edema accumulation than during diuresis and possibly higher than in normal subjects. That the latter may be true is suggested by the results of a single observation made on a healthy adult.[11]

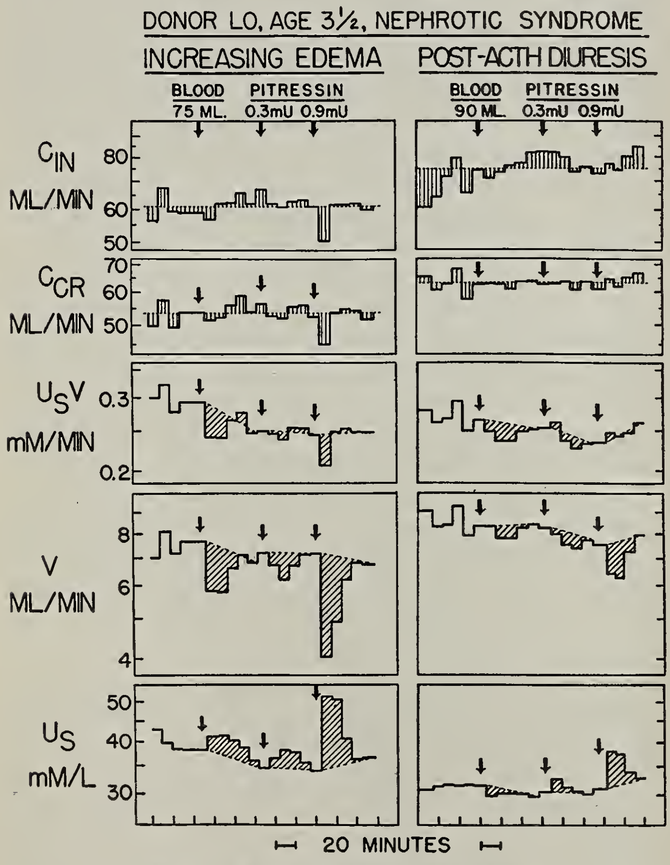

Fig. 1. For explanation see text.

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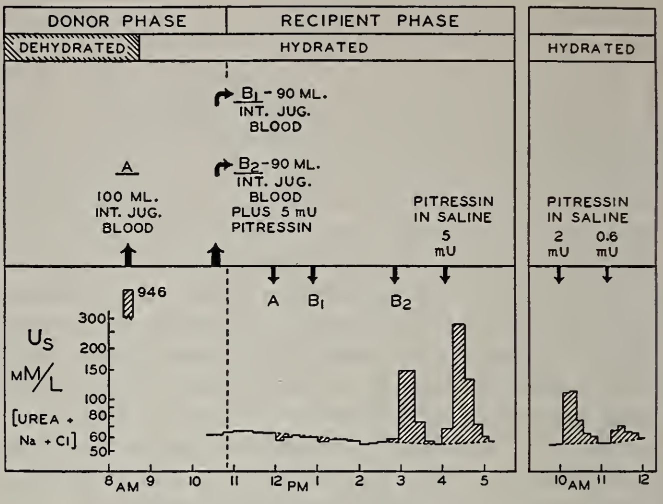

Fig. 2. For explanation see text.

In these observations (fig. 2), two samples of internal jugular blood were drawn during the donor phase; one at the end of a period of dehydration (*A*) and the other after hydration. The second sample was divided into two equal parts B^1 and B^2 and 5 mU of pitressin was added to the latter. During the recipient phase, the 100 ml. of the blood drawn during dehydration was injected intravenously during an induced water diuresis (A) followed by 90 ml. of the blood drawn after hydration (B1). As will be noted, no response was observed to either injection. Injection of the blood to which pitressin had been added (B2) elicited a response suggesting that there was no extensive destruction of pitressin in the time elapsing between drawing and reinjecting blood. In this instance, responses to pitressin indicated that 100 milliliters of internal jugular blood contained less than 0.6 milliunits of pitressin. When it is remembered that the blood drawn from this subject was internal jugular blood and, therefore, not diluted by the total circulation, as was the case in the blood drawn from an antecubital vein of the child with nephrosis, it would appear that the concentration of antidiuretic hormone in the blood of the patient with nephrosis was higher during the period of edema than that in a normal subject. However, it must be remembered that these data are from single observations. Even if they were confirmed by additional observations, we could not conclude that the cause of excess water retention was due to hypersecretion of antidiuretic hormone since such hypersecretion could represent a secondary response to some other cause.

In regard to the cause of proteinuria in nephrosis, the following possibilities could explain the increased rate of excretion of protein:[4]

1. Earlier observations suggested that abnormal plasma proteins may be passing through normal glomerular walls. However, the observations of Gitlin and Janeway[12] have shown that this is not the case.
2. Renal tubules might secrete protein from blood into the urine. There is no experimental evidence or even suggestion that this occurs.
3. Renal tubules may fail to reabsorb normally filtered protein or
4. There may be increased permeability of the glomerular wall to proteins.
5. There may be increased permeability of the glomerular wall to proteins (4) associated with a decreased capacity of the tubules to reabsorb protein (3).

There is increasing evidence for the existence of reabsorption of proteins by the renal tubule, at least, under physiologic conditions.[13] However, the role played by the tubule in the abnormal handling of protein by the kidney in patients with nephrosis remains unclear. On the other hand, the observations of Chinard, Lauson, Eder and their associates[14] provides what to us is convincing indirect evidence that the fourth factor, increased permeability to proteins, must be involved.

The cause of hyperlipemia in nephrosis has been a particularly intriguing problem.* The hyperlipemia consists of increases in serum cholesterol and phospholipids with a disproportionately large increase in neutral fat. This rise in lipids is associated with a rise in beta-lipoprotein.

In considering the mechanism responsible for the hypercholesterolemia, one should distinguish between the phase of development and the phase of maintenance of hyper-cholesterolemia. Little information is available on the rate of formation of serum cholesterol in man during the development of hypercholesterolemia. However, during the stage of maintenance, London and coworkers[15] found that whereas in a normal subject the average survivial time for a cholesterol molecule in the serum was twelve days, in a patient with nephrosis the average survival time was sixty-five days. Their data suggest that the maintenance of hypercholesterolemia is associated with a defect in the excretion, deposition or metabolic conversion of cholesterol rather than an increase in its rate of synthesis.

Investigations of the cause of hyperlipemia have been aided recently by the recognition that an experimental disease can be produced in animals which has many of the characteristics of the disease in man, including hyperlipemia.[16] Four hours after the injection of antirat kidney serum, produced in rabbits by the injection of rat kidney suspensions, proteinuria develops and within the following two to four hours, the total serum lipids rise.[17] The rise in cholesterol in the plasma is associated with a normal content of cholesterol and total lipids in the liver and other viscera.[18] This finding may indicate that the hyperlipemia of the nephrotic rat is associated with mobilization of fat rather than with an increased rate of synthesis of fat. Protein synthesis, however, is markedly increased in the experimental nephrotic animal and, *in vitro,* liver slices from nephrotic rats show an increased incorporation of labelled amino acid into their protein and an increased oxidation of glycine to carbon dioxide, indicating an acceleration of amino acid metabolism. This experimental nephrotic state is also found to be associated with a marked decrease in the level of liver glycogen and with some hypoglycemia in the fasting state. These findings have led Drabkin and his associates[19, 20] to suggest that with proteinuria and hypoproteinemia there is an increased formation of protein and a diversion of intermediary metabolic reactions away from carbohydrate formation, with the result that in the demand for more energy, fat is mobilized and remains elevated in the circulation. The increase of fat in the circulation is, however, not apparently associated with increase in synthesis, for livers of such nephrotic rats on incubation *in vitro* do not apparently synthesize cholesterol at an increased rate. In fact, the rate is somewhat reduced.

Although the correctness of this hypothesis may certainly be questioned, the evidence does suggest that the hypercholesterolemia develops not as a result of increased synthesis but rather from mobilization of fat into the plasma.

What role do the kidneys play in the hyperlipemia of nephrotoxic nephritis? If the kidneys are excluded from the circulation by nephrectomy, or by renal pedicle ligation, or if bilateral ureteral ligation is performed, no increase in lipid levels occurs. If unilateral nephrectomy is performed, the hyperlipemia still develops. However, in a rat with a unilateral nephrectomy if an anastomosis is made between the ureter and vena cava so that urine is returned into the blood stream, no lipemia develops. This interesting observation of Rosenman and others[21] suggest that there is a substance in the urine which must be excreted in order to permit hyperlipemia to develop. The nature of this substance, whether it be simply albumin or something quite unknown, at present, remains to be determined.

CARE OF PATIENTS WITH NEPHROSIS

The optimal care of a child with nephrosis and of his family requires that the physician be able to answer questions on the basis of the best available evidence. These questions* and the gist of our present answers* to them include the following:

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* The following section on hyperlipemia is a summary of a discussion prepared and presented by Dr. Irving M. London at a Combined Staff Conference on the Nephrotic Syndrome given at the Albert Einstein College of Medicine, October 14, 1955.

(1) *Will the Child Recover?* As will be discussed subsequently, this question cannot be answered in respect to an individual patient. Our answer, therefore, has to be based on the statistical fact that in large groups of children with nephrosis observed during the last ten years, approximately one half of the children have recovered.

(2) *How Long Does the Disease Last?* We answer this question on the basis of the observation that children with nephrosis tend to follow one of three courses:

(a) Recovery: Among the group of children who recover, the average duration is about two years although rarely recovery may occur as early as six weeks or occasionally as long as five or more years after the onset. As indicated above, about one-half of the children with nephrosis recover.

(b) Death During Active Stage: Most of the children who do not recover, die from progressive renal insufficiency during the first one to three years after the onset. About one third of the children die during this period.

(c) Later Deaths: A smaller proportion of the children who do not recover survive the active stage of the disease but emerge after one to three years of active disease with persistent loss of kidney function. Although the children in this group may live for several years without edema and apparently in fairly good health, death from renal insufficiency ultimately occurs. This course of the disease is observed in about one sixth of the children.

(3) *Can the Course of the Disease in an Individual Child With Nephrosis Be Predicted?* This is a crucial question not only for the physician caring for a child with nephrosis and for the family, but also for these investigating the disease. The ability to distinguish, at the onset of the disease, between those children who will recover and those who will die would permit comparative investigations which could lead to more understanding of the disease. It was thought formerly that the presence or absence of evidences of nephritis (mixed nephritis vs. pure nephrosis) provided such a differentiation. However, recent experience has failed to confirm this supposition. In a series reported recently,[3] eleven of twenty-eight children who had apparently recovered from nephrosis had shown evidence of nephritis (hematuria, hypertension, reduced clearances) at the time of the first examination. The fact that eleven of fifteen children who had died had shown evidence of nephritis at the onset indicates a significant difference in the incidence of recovery between children who did and did not show evidence of nephritis at the onset. However, such data do not permit the investigator, or the physician talking with the parents of a child with nephrosis, to say on the basis of the presence or absence of evidences of nephritis at the onset of the disease, that an individual child will die or recover.

From results obtained with the use of refined methods for measuring kidney function in children with nephrosis, it has been suggested that the presence of a low filtration fraction (glomerular filtration rate/effective renal plasma flow) may indicate a poor prognosis.[22] Also, interest has been revived recently in the older observation indicating that the ratio of globulin to albumin fractions in the urine of patients with nephrosis may have prognostic significance.[23] However, in our opinion, neither the most refined tests of kidney function nor the most detailed biochemical investigations have provided, as yet, a means of differentiating early in the disease between those children with nephrosis who will recover and those who will die. If they can be done safely in children, it can be hoped that information gained from serial renal biopsies[24, 25] may contribute to this important differentiation.

Even though the final outcome cannot be predicted from clearance data, we believe, it is of value to know the status of kidney function in an individual child with nephrosis and clinically we believe the clearance of urea serves this purpose.[26] If the urea clearance is normal we believe we can say that the child is at that time in the favorable group; if the clearance is decreased we can say that, in order for the child to recover, the clearance will have to return to normal which it may do. It is only when the clearance is markedly reduced over a long period of time that we can say that recovery cannot be expected.

Finally, we believe it is important for parents to know that the status of a child's kidney function or the prognosis cannot be judged by the severity or the duration of edema.[3]

(4) *Why Did the Child Get Nephrosis and Could It Have Been Prevented?* Expressed or not this question must occur to every parent of a child with nephrosis. Our reassurance of the parents that it is not their fault is based on the fact that although there is both clinical and experimental evidence that the disease may be related to some type of sensitivity, the actual cause of the disease in man is completely unknown. To our present knowledge, therefore, there is nothing the parents did or failed to do ("If I just hadn't let her go swimming last Sunday") which could have prevented the disease.

(5) *Are Other Children in the Family of a Child With Nephrosis Likely to Get the Disease?* Although the incidence of nephrosis in siblings of a child with nephrosis appears to be higher than in the general population of children,[3] the in-

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* The questions are listed in what might be considered their order of importance. The sequence in which they may be asked by the parents and the manner, time and completeness with which they are answered will depend on the parents and on the physician.

cidence is still so low that we reassure parents concerning the unlikelihood of this possibility.

(6) *Does Current Therapy Affect the Course of Nephrosis or the Final Outcome?* This question can be answered most readily in the affirmative in terms of prevention of deaths from superimposed infections. Beyond this the evaluation of therapy for children with nephrosis remains equivocal.

GENERAL MEASURES[3]

(1) *Diet:* With the exception of moderate restriction of salt, we advise that a child with nephrosis should be offered a diet that is considered optimal for a child of his age and that the usual psychologic principles concerning feeding should apply.

(2) *Activity:* We do not recommend restriction of activity beyond that which the child with nephrosis might impose upon himself during periods of massive edema.

(3) *Infections:* It is our present opinion that, during the active stage of the disease, children with nephrosis should receive continuous prophylactic antibiotics. For this purpose, we have given 300,000 units of Bicillin® once a day or 200,000 unit tablets twice a day alternating at monthly intervals with oral Terramycin® (5 mg. per kilogram twice a day). During exacerbations, the child with nephrosis is susceptible to severe generalized infections. Peritonitis, which may be accompanied by septicemia and cellulitis, is the most common of these severe infections. The presence of ascites may mask the classic signs and symptoms of peritonitis and it must be suspected, therefore, whenever a child with nephrosis develops a fever and looks sick. The fact that these infections were the cause of death in more than 50 per cent of children with nephrosis before effective antimicrobial drugs were available emphasizes the importance of early diagnosis and vigorous treatment. Whereas in the past the pneumococcus caused most of these infections, at present they are due more frequently to other organisms and probably most often to Escherichia coli. An attempt should be made to determine the organism from blood and ascitic fluid cultures but treatment should be started promptly with large doses of antimicrobial therapy designed to provide the broadest possible coverage.

(4) *Treatment of Edema:* Of the many agents or procedures which have been suggested for relieving edema in children with nephrosis, the only one which we use specifically for this purpose at present is abdominal paracentesis. We advise against the use of osmotic diuretics, mercurial diuretics, exchange resins, low salt diets, antihistamines or thyroid extract.

(5) *Specific Treatment (?):* It has been established that several agents (corticotropin[27] or adrenocortical steroids,[28] nitrogen mustards,[29] thiosemicarbazone,[30] measles virus,[31] malaria,[32]) are capable of inducing in edematous children with nephrosis the same type of profuse, sustained, complete diuresis which may occur spontaneously or occasionally following severe infections. In addition, such diureses may be accompanied by striking improvement in certain physiologic and biochemical characteristics of the disease[3] (decreases in hyperlipemia and rates of urinary excretion of protein and aldosterone; increases in serum albumin and glomerular filtration rate). Finally, it seems clear that prolonged administration of some of these agents (corticotropin,[33] adrenocortical hormones,[34, 35]) after a diuresis has been induced may in most instances prevent the recurrence of edema.

The crucial question at the present time is whether or not such regimens of prolonged therapy favorably influence the final outcome of the disease. From an analysis of the course of the disease in a large group of patients observed in eighteen clinics throughout the country, Riley and associates[36] have concluded recently that "prolonged and intensive use of adrenocortical-active hormone therapy in childhood nephrosis not only improves the clinical status but also extends life." Although this and other reports leave unanswered the question of the effect of such treatment on final outcome, such analyses provide the basis for the present attitude toward the use of these hormones in children with nephrosis which is as follows: We suggest that therapy with hormones be started as soon as the diagnosis of nephrosis is established. At present we are giving prednisone in a dosage of 60 mg. per day for three days followed by 40 mg. per day to children under 5 years or 80 mg. per day for three days followed by 60 mg. per day for children over 5 years. The daily dosage is given in four equal doses distributed as evenly as practicable throughout the twenty-four hours. The reduced dosage is continued for varying periods of time depending upon the response of the child. If a complete diuresis occurs within fourteen days, continuous daily therapy is discontinued after this period and the patient is started on a similar dosage intermittently (either 40 or 60 mg. per day given three days of each week). If no diuresis has occurred by fourteen days, the reduced dosage is continued until a diuresis occurs, after which it is given intermittently. If no diuresis has occurred by the twenty-eighth day, the hormone is discontinued and no intermittent therapy is given. In the latter instance, we suggest observing the patient for one to two months and if edema persists trying the same regimen again.

During the time a patient is receiving steroids continuously, we give therapeutic doses of antimicrobial therapy designed to provide the broadest possible coverage. Antibiotics are given prophylactically during the period of intermittent therapy. During treatment, we advise a regular diet with only moderate salt restriction and the addition of potassium in a dosage of about 3 mEq.

per kg. per day if the child is eating poorly. Most importantly, perhaps, in preventing complications, is that the child be examined frequently by the physician with especial attention to the blood pressure and evidence of infection. Whether or not adequate observation requires hospitalization during the periods of continuous treatment will depend upon the circumstance.

The important question of how long intermittent therapy (or long-continued daily therapy in lower dosages) should be continued is unsettled. Some authors recommend empirically continuing therapy for one year[37] whereas others suggest using such laboratory procedures as the sedimentation rate[36] or the rate of protein excretion[38] as indications for discontinuing therapy. Our present belief is that using the rate of protein excretion for this purpose, probably, constitutes the best guess and at present we recommend giving intermittent therapy for one or two months after the rate has fallen to below 100 mg. per twelve hours. If, in the absence of other evidences of activity, proteinuria persists despite intermittent therapy, we usually discontinue therapy after about six months and start again only if proteinuria increases. If a true exacerbation occurs while the child is on intermittent therapy, the therapy is discontinued for a period of one to two months after which therapy may be tried again as for a patient at the onset of the disease.

SUMMARY

Nephrosis in children has been defined as a distinct disease entity which may result in recovery or in death from renal insufficiency and emphasis has been given to the fact that it is not possible early in the course of the disease to predict the outcome in an individual child. Discussion of the present status of investigations into the causes of edema, proteinuria and hyperlipemia in children with nephrosis has indicated that many of the underlying mechanisms responsible for these major alterations have not been clarified. Suggestions concerning the care of children with nephrosis and their families have been given. It is concluded that treatment with adrenal hormones should be given although the important question concerning the effect of such treatment on the final outcome of the disease cannot be answered at present.

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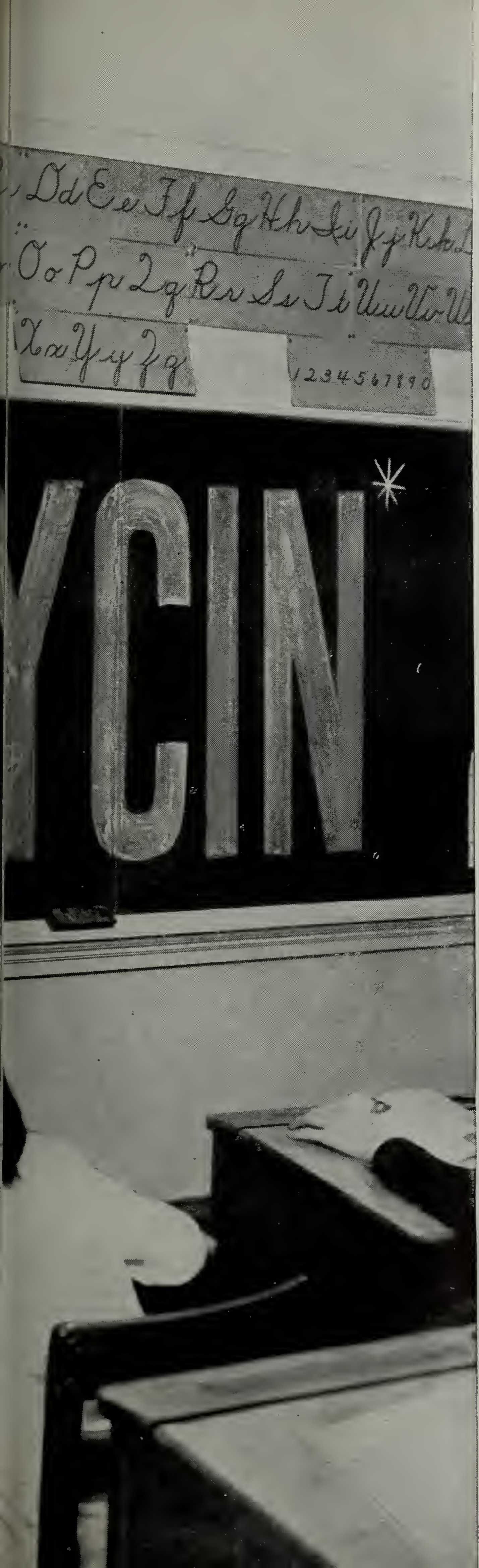

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Special Article

A.M.A. Highlights and Transactions

Chicago Meeting, June 11-15, 1956

Report of Missouri Delegates to A.M.A.

Arthur S. Bristow, Princeton; Frank L. Feierabend, Kansas City; Durward G. Hall, Springfield; Joseph C. Peden, St. Louis.
Reporter for this meeting, Durward G. Hall.

Missouri delegates were all present for the meeting, as were alternate delegates, W. J. Shaw, Fayette; Walter Baumgarten, Jr., St. Louis; and Rolla B. Wray, Nevada. Dr. H. Relton McCarroll, St. Louis, served as delegate from the Section on Orthopedics, and Dr. M. B. Casebolt, Kansas City, served as delegate from the Section on General Practice, thus giving Missouri two additional delegates at this session.

Missouri delegates served in the following official capacities at the meeting:

Dr. Joseph C. Peden, member of the Reference Committee on Miscellaneous Business.

Dr. Arthur S. Bristow, member of the Reference Committee on Legislation and Public Relations.

Dr. Frank L. Feierabend served as one of the official Tellers (a busy position at this session because of the under-riding turbulence and particularly on the closing day because of the number of ballots taken on the elections).

Internal issues monopolized the attention of the House of Delegates in Chicago as they considered fifty-four resolutions, reports of officers, Board of Trustees and departments. Private practice by medical school faculty members, hospital accreditation, a new simplified "Principles of Medical Ethics," federal construction grants for medical schools, evaluation of graduates of foreign medical schools, and premature publicity on new drugs received major consideration, as 194 delegates (100 per cent of eligible state, section and government services representation) met to carry out the work of the A.M.A. Total registration was 27,115 persons, including 9,969 physicians (as compared to 27,458 at Atlantic City last year which included 11,546 physicians).

The leadership of Missouri's Jim McVay on the Board of Trustees and his influence in the work of the various Councils was strongly felt in the behind the scenes sessions of the House. Needless to say, all Missouri physicians should strongly support his leadership.

Dr. Alphonse McMahon, St. Louis, Chairman of the A.M.A. Council on Scientific Assembly, was responsible for another excellent scientific program, involving all sections and the technical and scientific exhibits on the mile long Municipal Pier. Arrangements were perfect, the weather was hot!

Distinguished Service Award

Dr. Walter L. Bierring, Des Moines, Iowa, was presented the Distinguished Service Award for his long and outstanding contributions to medicine and humanity. Dr. Bierring, a Past President of the A.M.A., was honored for his achievements in the fields of public health and medical examining board work.

New Officers

Dr. Dwight H. Murray, Napa, California, who has completed a year as President-Elect was officially installed as President of the Association in impressive inaugural ceremonies which were held at the Chicago Civic Opera House.

Elected at the 1956 Annual Session were Dr. David B. Allman, Atlantic City, President-Elect; Dr. F. S. Crockett, Lafayette, Ind., Vice President; Dr. George F. Lull, Chicago, Secretary; Dr. J. J. Moore, Chicago, Treasurer; Dr. E. Vincent Askey, Los Angeles, Speaker, and Dr. Louis M. Orr, Orlando, Fla., Vice Speaker; Dr. Julian Price, Florence, S. C., was reelected to the Board of Trustees, and Dr. Hugh Hussey, Washington, D. C., was named to succeed Dr. Allman on the Board; Dr. Robertson Ward, San Francisco, was elected to the Judicial Council to succeed Dr. Walter F. Donaldson; reelected to the Council on Medical Education and Hospitals were Dr. Guy A. Caldwell, New Orleans, and Dr. John W. Cline, San Francisco; Dr. Walter E. Vest, Huntington, W. Va., was named to succeed Dr. Louis A. Buie on the Council on Constitution and By-Laws; elected to the Council on Medical Service were Dr. Carlton Wertz, Buffalo, N. Y., to succeed himself, and Dr. J. F. Burton, Oklahoma City, to succeed the late Dr. A. C. Scott, Jr., of Texas. Named for the three new places created on the Council on Medical Service were Dr. Thomas Danaher, Torrington, Conn., Dr. R. M. McKeown, Coos Bay, Oregon, and Dr. Lafe Ludwig, Los Angeles.

Hospital Accreditation

On instruction of the House of Delegates in June 1955, the Speaker of the House appointed a Committee to Review the Functions of the Joint Commission on Accreditation of Hospitals.

The Committee made the following recommendations to the House in Chicago which were approved: (1) Accreditation of hospitals should be continued. (2) The Joint Commission should maintain its present organizational representation (A.M.A. six Commissioners, American College of Physicians three Commissioners, American College of Surgeons three Commissioners, American Hospital Association seven Commissioners, and the Canadian Medical Association one Commissioner). (3) The Board of Trustees should report annually to the House of Delegates on the activities of the Joint Commission. (4) Physicians should be on the administrative bodies of hospitals. (5) General practice sections in hospitals should be encouraged. (6) Staff meetings required by the Joint Commission

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are acceptable, but attendance requirements should be set up locally and not by the Commission. (7) The Joint Commission should not concern itself with the number of hospital staffs to which a physician may belong. (8) The Commission is not and should not be punitive. (9) The Commission should publicize the method of appeal to hospitals that fail to receive accreditation. (10) Reports on surveys should be sent to both administrator and the chief of staff of the hospital. (11) Surveyors should be directly employed and supervised by the Joint Commission. (12) Surveyors should work with both administrator and staff. (13) New Surveyors should receive better indoctrination. (14) Blue Cross and other associations should be requested not to suspend full benefits to nonaccredited hospitals until those so requesting have been inspected. (15) The A.M.A. should conduct an educational campaign for doctors relative to the functions and operations of the Joint Commission. (16) The Committee also suggests that the A.M.A. and the American Hospital Association encourage educational meetings for hospital boards of trustees and administrators either on state or national levels to acquaint these bodies with the functions of accreditation.

The House of Delegates also approved a reference committee suggestion that the following statement be added to strengthen the report: "The Committee recommends that the commissioners to the Joint Commission on Accreditation of Hospitals, appointed by the Board of Trustees of the A.M.A. urge that Commission to study: (1) The problems of the exclusion from hospitals and arbitrary limitation of the hospital privileges of the general practitioner, and (2) methods whereby the following stated principles may be achieved: The privileges of each member of the medical staff shall be determined on the basis of professional qualifications and demonstrated ability; and, personnel of each service or department shall be qualified by training and demonstrated competence, and shall be granted the privileges commensurate with their individual abilities."

Private Practice by Medical School Faculties

As previously mentioned, this was a turbulent session of the House. This feeling was noted particularly when the House insisted on approving immediately, a report by the Committee on Medical and Related Facilities (of the Council on Medical Service) pertaining to private practice by medical school faculty members; thus overriding the recommendation of the Council and officers that action be deferred six months.

Among the recommendations: All patients treated in medical school facilities should be available for teaching purposes. Medical schools might levy charges (for space, facilities and personnel) upon part-time faculty members who use its facilities in private clinical practice and deduct such charges from their earnings. Specifically the House adopted a Council report which stated "that it shall be the policy of the American Medical Association that funds received from the private practice of medicine by salaried members of the clinical faculty of the medical school or hospital should not accrue to the general budget of the institution and that the initial disposition of fees for medical service from paying patients should be under the direct control of the doctor or doctors rendering the service."

The finally approved report also stated, "It is the firm policy of the American Medical Association . . . that only a licensed doctor of medicine should practice medicine. It is not in the public or professional interest for a third party to derive a profit from payment received for medical services, nor is it in the public or professional interest for a third party to intervene in the physician-patient relationship."

Simplified Code of Medical Ethics

Carrying endorsement of the Judicial Council and of the Council on Constitution and By-Laws, a new concise "Principles of Medical Ethics," received interim approval of the House of Delegates, with final action scheduled for the A.M.A.'s November meeting in Seattle.

The present "Principles of Medical Ethics" covers forty-eight sections, spread over eight chapters. The revised version is stated in fifteen sentences contained in ten brief paragraphs.

The Judicial Council, in endorsing the revised Principles stated "From time immemorial, the Judicial Council in its reports to this House of Delegates has stated that the 'Principles of Medical Ethics are principles.' The Council has repeatedly emphasized that they are, as their preamble clearly states, 'intended to serve the physician as a guide to ethical conduct as he strives to accomplish his prime purpose of serving the common good and improving the health of mankind.' "

The Council on Constitution and By-Laws stated "they (Proposed Principles) succinctly express the fundamental ethical concepts embodied in the present Principles. Every basic principle has been preserved. On the other hand, as much as possible of the prolixity and ambiguity which in the past obstructed ready explanation, practical codification and particular selection of basic concepts, has been eliminated. The members of the Council believe and wish to emphasize that no fundamental ethical concept has been omitted from the Principles which are now presented for your consideration." The new "Principles" will be circulated for members to see in the next six months. Comments are invited before the Seattle meeting.

Federal Construction Grants for Medical Schools

One of the most controversial subjects of debate on the floor of the House was a Texas resolution expressing strong opposition to S. 1323, a bill in Congress providing for one time matching grants to medical schools for construction purposes. Though the A.M.A. has been supporting such legislation in recent years in principle, with reservations concerning details of some provisions, the Texas resolution condemned such measures as "a major step toward socialization."

The view of the Texas delegation received strong support in the House, but after statements by President Dwight Murray and Past A.M.A. Presidents Bauer and Cline to the effect that such a shift in policy would weaken the A.M.A.'s bargaining power in Washington and this legislation provides only "brick and mortar" aid, the House approved the reference committee statement which said:

"We appreciate the intent with which this resolution was introduced, but at the same time we feel that there are many economic and geographical factors involved, which might not make this resolution practical on a national level. Inasmuch as no evidence was offered to

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[1] Martin, W. J., et al.: J.A.M.A. *160*:928 (March 17) 1956.

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this Committee to justify a change in the previously declared policy of the House of Delegates, your Committee recommends that this resolution be not adopted."

Graduates of Foreign Medical Schools

The House of Delegates approved in principle a program for the evaluation of graduates of foreign medical schools seeking hospital positions in the United States. The proposed program was developed by the Cooperating Committee on Graduates of Foreign Medical Schools, representing the A.M.A. Council on Medical Education and Hospitals, American Hospital Association, the Association of American Medical Colleges and the Federation of State Medical Boards of the United States.

The program is designed to clear up two important facts regarding each foreign medical graduate who wishes to come to the United States as an intern or resident or in any other position that involves medical care of the American public: (1) The medical credentials of the foreign-trained physician must clearly indicate that he was graduated from a bona fide medical school, and (2) by examination, a foreign medical graduate must demonstrate that he has medical knowledge equivalent to that demanded of graduates of schools in the United States.

Basic requirements would include satisfactory evidence of at least 18 years of total formal education, including a minimum of 32 months in medicine exclusive of any time which in this country would be considered as premedical study or internship. Applicants with satisfactory credentials then would take a screening examination to determine their medical knowledge and their facility with the English language. Successful applicants then would be certified to hospitals and other interested organizations, with the approval of the foreign-trained physician concerned.

The need for such a program has been brought about by a continuing influx of foreign-trained physicians to the U. S. for a long time. At present, there are more than 6,000 such physicians in this country on temporary visas serving as interns or residents. It is estimated that more than half of this group have entered during the last year and the remainder represent those who have been here for more than a year. All foreign-trained physicians here on temporary visas are supposed to return to their native countries on completion of their internship or residency training.

In addition, there is another group of approximately 1,000 foreign-trained physicians who enter each year as immigrants or as American citizens returning after completing their medical education abroad.

Premature Drug Publicity

Resolutions were introduced by a Delegate from the Arkansas Medical Association and by the Pennsylvania Delegation which would have had the A.M.A. recommend to pharmaceutical firms that they "(1) Limit mail advertisements and/or samples to one a month mailings in any manner they see fit, and (2) earmark the money which this procedure would save to be contributed (as a tax deductible item) to schools of medicine, pharmacy, dentistry and nursing for grants-in-aid in professional education and medical research" and which would have had the A.M.A. Board of Trustees "consider the formulation of a policy concerning relations between pharmaceutical firms and the medical profession, as well as the public, in respect to premature publicity concerning drugs, the granting of subsidies to medical meetings and other allied matters."

The House of Delegates adopted a substitute resolution providing that the Board of Trustees of the A.M.A. appoint a liaison committee to meet with representatives of the pharmaceutical manufacturers to cooperatively develop guiding principles which will protect the American people from being subjected to the premature release of information pertaining to new products or technics.

Miscellaneous Business

Among many other matters considered, the House also:

Approved a statement on Social Security which included the following: "It is imperative that we distinguish clearly between this problem of coverage of physicians and the far more dangerous disability proposal. The fact should be recognized that the shape of medical practice in the future is not directly related to the inclusion or exclusion of physicians under OASI. It is a matter of vital importance to us as individuals, but cannot, per se, stimulate further government intrusion into medical care. On the other hand, the disability amendment obviously brings the Social Security Administration closer to the regulation of medical care than ever before."

Amended the By-Laws to provide that the Vice President, Treasurer, Speaker and Vice Speaker of the House of Delegates shall be ex-officio members of the Board of Trustees with all the rights and duties of the Board without the right to vote.

Increased membership in the Council on Medical Service from six to nine active or service members and eliminated all ex-officio members except the immediate Past President.

Directed the Council on Medical Service and the Council on Industrial Health to reconsider the "Guiding Principles for Evaluating Management and Union Health Centers" through their joint Committee on Medical Care for Industrial Workers and to so revise the guides that they conform completely with the Principles of Medical Ethics.

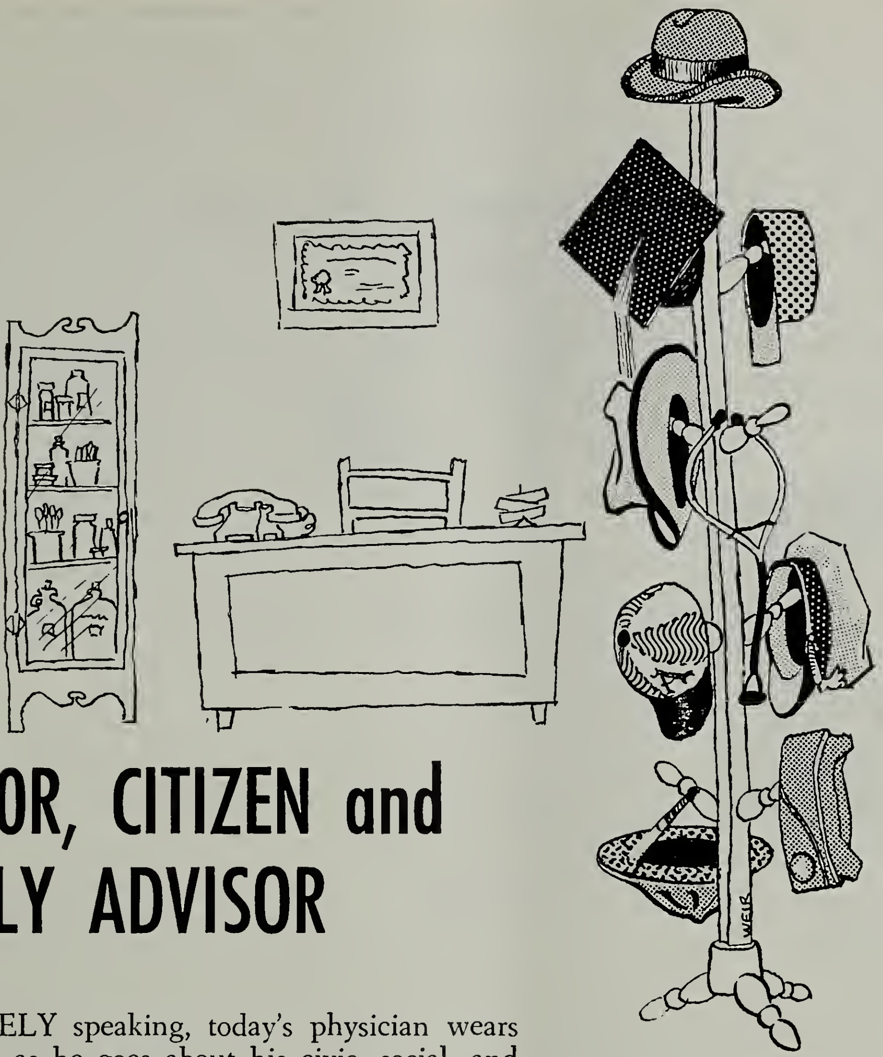
Authorized the Committee on Federal Medical Services to make a continuing study of all VA medical activities under the basic policy established in June, 1953, and suggested reconsideration of the temporary exceptions made at that time with respect to neuropsychiatric and tuberculosis disorders. The Reference Committee gave Dr. Wolford, Assistant Medical Director of VA a "hard time."

Instructed the Board of Trustees of the A.M.A. to contribute to a fund to be established by the Student A.M.A. for the purpose of making loans to medical students.

Heard discussed in Reference Committee meetings of the growing need for active support of Blue Shield plans by physicians.

Heard Dr. Elmer Hess, outgoing President warn that the medical profession must be prepared to face an all-out drive by some labor groups for national compulsory health insurance, and heard Dr. Dwight H. Murray, the new President, state that general practitioners and specialists must guard against "any cleavage within our profession," and he urged strength through unity.

(Continued on page 812)



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President's Page

Public Law 569, recently enacted by the Congress of the United States and approved by the President, to take effect Dec. 8, 1956, provides for medical care for the dependents of the uniformed services. These services as outlined in the Act are Army, Navy, Air Force, Marine Corps, Coast Guard, Public Health Service and the Commissioned Corps of the Coast and Geodetic Survey. A complete résumé of the Act was published in Missouri Medicine, August 1956, page 720.

Dependents include wife or husband, unmarried children, parents or parents-in-law, if in fact dependent for support upon the member of the armed forces, and others.

The administration of the act will be handled by the Department of Defense. The administrative regulations are now being worked out by a committee of the Department of Defense.

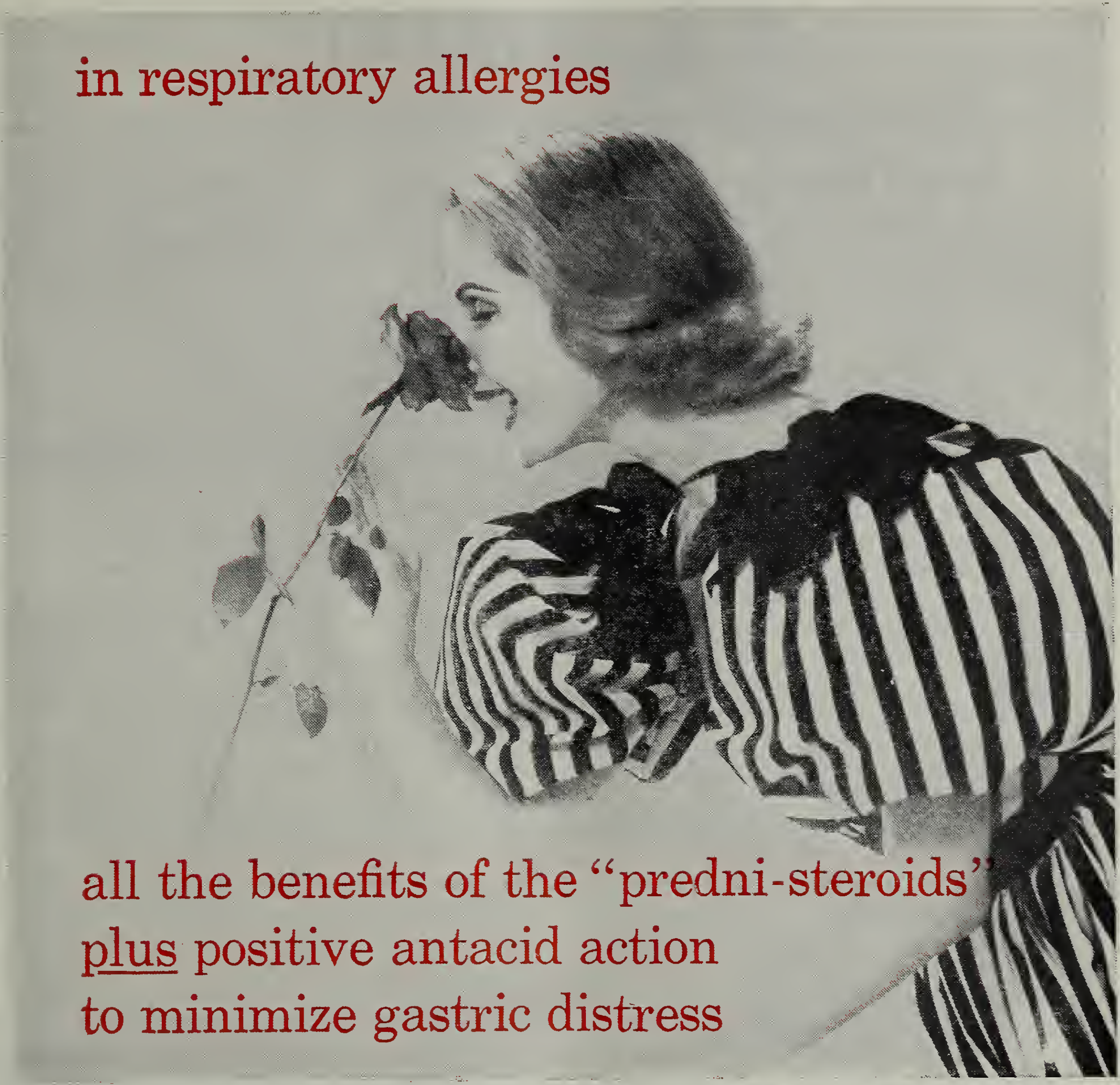
A special committee of the A.M.A. is studying the proposed regulations. A special meeting was held in Chicago on July 28 and 29 for representatives of state medical associations. Members of the Committee on Medical Economics of the Association and the Executive Secretary attended.

The type of medical care furnished by the government for these dependents will include medical and surgical treatment, hospitalization, obstetrical and maternity service including prenatal and postnatal care, pediatric care, on a full service basis, subject to the regulations of the Department of Defense.

According to the Act, the dependents covered may elect to receive medical care in either the facilities of a uniformed service or through civilian facilities.

The regulations will be studied carefully by the Association Committee on Medical Economics and reports will be made in forthcoming issues of Missouri Medicine.

M.D.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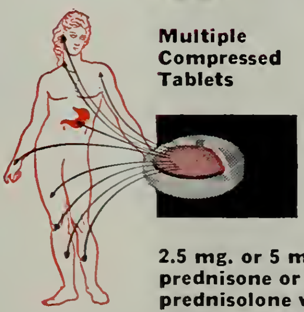

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Clinical evidence[1,2,3] indicates that to augment the therapeutic advantages of prednisone and prednisolone, antacids should be *routinely* co-administered to minimize gastric distress.

References: 1. Boland, E. W., *J.A.M.A.* 160:613 (February 25) 1956. 2. Margolis, H. M. *et al.*, *J.A.M.A.* 158:454 (June 11) 1955. 3. Bollet, A. J. *et al.*, *J.A.M.A.* 158:459 (June 11) 1955.

2.5 mg. or 5 mg. prednisone or prednisolone with 50 mg. magnesium trisilicate and 300 mg. aluminum hydroxide gel.

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EDITORIAL

Medical Economics

In organized medicine today there are three groups, the liberal left favoring government subsidization of medical education and medical care; the middle-of-the-road group opposing the former but advocating medical care on a fee-for-service basis or prepaid insurance for low income groups; and the conservative right which oppose any voluntary proposal by organized medicine fearing that such may be an invitation to "socialized medicine."

Both Blue Cross and Blue Shield were born during the economic upheaval following the financial crash of 1929 and those that went through that trying period well remember the welcome extended to Blue Shield by most physicians as a means of budgeting for illness—and the welcome by the hospitals for Blue Cross for essentially the same reason. In the present sustained economic prosperity many physicians regard Blue Shield only with tolerance and a tendency exists for hospitals to look askance at Blue Cross.

During this interim several factors have changed the picture. Among these may be cited the phenomenal growth of voluntary and private carrier plans of insurance; the liberal government attitude toward this problem which has great political appeal; the increased cost of medical care due both to new expensive therapeutic agents and inflation; an actual shortage of hospital beds both because of increased utilization due to insurance and failure of increase of hospital beds in proportion to the increase in population.

Another recent factor which is of extreme importance is the rapid spread of "fringe benefits" to organized labor in the form of health plans. Since 1948 when only two and a quarter million workers were so covered it had increased until in early 1954 (the last year for which statistics are available) eleven million workers were so covered. Since 1954, among many may be cited only two, the railroad employees and the steelworkers, which will add millions more.

Organized labor and industry demand medical care—not indemnity—for illness. In some areas full medical care by the union or industry has been established, witness in St. Louis the Labor Health Institute. Proposals have even been made that full-time staffs of hospitals extend medical care to industrial groups. There is every reason to believe that health and medical benefits will spread in organized labor since they have a selfish appeal both to the employer and to labor.

The latest major medical economic problem is that created by Public Law 569 of the 84th Congress, entitled the "Dependents Medical Care Act" (See Summary, page 720, August issue Missouri Medicine), which provides for inpatient medical care for dependent spouses and children of active servicemen at civilian medical facilities, estimated to number 800,000 persons at an annual cost of about sixty million dollars. This will necessitate negotiation of standard fee schedules by the Department of Defense with organized medicine in the various states and territories. In many states, and Missouri is one, existing Veteran's Department Standard Fee Schedules are precedents for this procedure. Negotiation of this new fee schedule was authorized by the MSMA House of Delegates by resolution 9429, April 6, 1956, recommending implementation through the Blue Shield and Blue Cross organizations. No one seriously doubts that this is only a forerunner for similar proposals for all other governmental employees, since they too point to industry as a prime example of medical care furnished by the employer and argue why should Uncle Sam be an exception.

One might ask how does organized medicine stand generally as regards fee-for-service versus indemnity type plans? Alabama, Arkansas, Delaware, Illinois, Indiana, Kentucky, Mississippi, Missouri (St. Louis only), New Hampshire, Ohio, Oklahoma, South Dakota, Texas and Vermont have indemnity type plans. All other states and territories generally have combination type plans which allow for fee-for-service for low income groups. Some states have multiple plans and some overlap into adjacent states so that no hard and fast rule following state lines can be drawn. Illinois, Ohio and Texas are the only three large states with indemnity type plans and in Texas this solid front is broken by the Dallas County Plan and in Illinois by the Rock Island County, both of which have service type plans. To summarize: of seventy-seven plans representing thirty-four states either sponsored or approved by organized medicine, five are service type, twenty are indemnity only and fifty-two are combination with service type for low income groups.

It is entirely possible that the conservative group may be right in their contention that any voluntary proposal by organized medicine may be the entering wedge for the socialization of medicine. If this is true, then thirty-four of the forty-eight states have already taken this fateful step. The individ-

(Continued on page 812)

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Missouri Medical Meetings

Annual Meeting Missouri Academy of General Practice, Governor Hotel, Jefferson City, Oct. 24, 25, 1956.

Missouri State Medical Association Annual Session, Kansas City, March 31, April 1, 2, 3, 1957.

St. Louis Pediatric Society—second Thursday of each month, September through May at Medart's Restaurant, 8:00 p.m.

Component Society Meeting Dates

Audrain County Medical Society—second Thursday of each month.

Barton-Dade County Medical Society—third Wednesday of each month.

Benton County Medical Society—meets only on call.

Boone County Medical Society—first Tuesday of each month.

Buchanan County Medical Socitey—first Wednesday of each month.

Butler-Ripley-Wayne County Medical Society—first Wednesday of each month.

Callaway County Medical Society—third Thursday of each month.

Cape Girardeau County Medical Society—first Monday of each month.

Chariton-Macon-Monroe-Randolph County Medical Society—second Thursday of each month September through May.

Clay County Medical Society—last Tuesday of each month.

Clinton County Medical Society—meets only on call.

Cole County Medical Society—third Tuesday of each month.

Cooper County Medical Society—first Monday after the 15th of each month.

Dallas-Hickory-Polk County Medical Society—first Wednesday of each month.

Dunklin County Medical Society—third Tuesday of each month.

Franklin-Gasconade-Warren County Medical Society—last Tuesday of each month at the St. Francis Hospital, Washington, at 12:30 p.m.

Grand River Medical Society (Caldwell-Carroll-Livingston, Grundy-Daviess, Harrison, Linn, Mercer, DeKalb)—second Thursday of each month.

Greene County Medical Society—fourth Friday of each month.

Henry County Medical Society—meets only on call.

Holt County Medical Society—meets only on call.

Howard County Medical Society—meets only on call.

Jackson County Medical Society—fourth Tuesday of each month execpt June, July and August, at auditorium of General Hospital No. 1.

Jasper County Medical Society—second Tuesday of each month, September through May.

Jefferson County Medical Society—meets only on call.

Johnson County Medical Society—meets only on call.

Laclede County Medical Society—second Monday of each month at 6:00 p.m., at the Louise Wallace Hospital, Lebanon.

Lafayette-Ray County Medical Society—second Tuesday of each month at 7:30 p.m., at the Victory Cafe, Lexington.

Lewis-Clark Scotland County Medical Society—meets only on call.

Lincoln-St. Charles County Medical Society—third Thursday of each month.

Marion-Ralls-Shelby County Medical Society—fourth Tuesday of each month. 7:30 p.m.

Miller County Medical Society—meets only on call.

Mineral Area County Medical Society (St. Francois-Iron-Madison-Washington-Reynolds-Ste. Genevieve)—fourth Thursday of each month.

Moniteau County Medical Society—second Thursday of each month.

Newton County Medical Society—meets only on call.

Nodaway-Atchison-Gentry-Worth County Medical Society—first Monday in February, April, October and December.

North Central Counties Medical Society (Adair-Schuyler-Knox-Sullivan-Putnam)—meets only on call.

Ozarks Medical Society (Barry-Lawrence-Stone-Christian-Taney)—second Tuesday of each month September through June.

Pemiscot County Medical Society—third Thursday of each month.

Perry County Medical Society—second Thursday of each month.

Pettis County Medical Society—third Monday each month September through May.

Phelps-Crawford-Dent-Pulaski-Maries County Medical Society—fourth Thursday of each month.

Pike County Medical Society—third Tuesday of each month.

Platte County Medical Society—meets only on call.

St. Louis County Medical Society—second and fourth Wednesday of each month.

St. Louis Medical Society—first, third and fifth Tuesday of each month October through May.

Semo County Medical Society (Stoddard, New Madrid, Mississippi, Scott)—third Wednesday of each month September through May.

South Central Counties Medical Society (Howell-Oregon-Texas-Wright-Douglas-Ozark)—fourth Wednesday of each month.

Vernon-Cedar County Medical Society—meets only on call.

Webster County Medical Society—meets only on call.

West Central Missouri Society—second Thursday of each month.

Musings of the Field Secretary

Many people are overly influenced by the concept of "bigness." They, too many times, think of "bigness" and "success" as synonymous. This idea is even carried over, in some instances, into the evaluation of medical society programs.

The following report of an effective health education program by a small county medical society represents a radical departure from the above viewpoint.

In January of this year, the Perry County Medical Society (thirteen members) voted to sponsor a regular weekly radio program over the local radio station for the purpose of disseminating new information about medicine, to emphasize to and educate the local population regarding local medical problems, and to better public relations between the profession and the people. On March 29, 1956, the Perry County Medical Society sponsored its first radio program on the local radio station, KSGM (980 kilocycles).

The first three programs were composed of panel discussions by doctors from the Medical Society. The topics for these first three programs were (1) Rabies, (2) Polio, and (3) Tetanus. The manner in which these were carried out was as follows: One of the Society members, as program director, made out a series of questions on each subject and distributed these questions among three doctors for each program. A carbon copy of the questions was also sent to the editor of the *Perry County Monitor* (a weekly newspaper) who served as moderator on each program. Then, at convenient times, following this, the panel of physicians with the moderator met and tape recorded a fifteen minute program on each subject. The programs are composed simply of questions by the moderator with answers by the doctors in rotation. A good response to these first three programs has been indicated, and the doctors feel a definite contribution has been made to the community.

The Society has now decided not to hold these panel discussions continuously because of the time and effort involved, but to have panel discussions at appropriate times and to intersperse them with recorded broadcasts from the American Medical Association. Accordingly, since the first three panels were done, they have been running the series, "The Living Proof," which was obtained free of charge from the American Medical Association. These programs are interviews and discussions about specific diseases such as alcoholism, obesity, diabetes and cancer. In these programs, specific patients are actually interviewed and because the interviews are unrehearsed, they are extremly interesting. Many good comments about this particular series have been received from listeners. The Society plans to use several other series which are available when the twelve records from this series are finished.

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News

An open house was sponsored in Marble Hill by the Lutesville-Marble Hill Junior Woman's Club on July 7 for Grady L. Breece, Jr., M.D., and his family. Dr. Breece began practice in Marble Hill on July 9.

The State Board of Medical Examiners recently elected **Harry A. Klein**, M.D., St. Louis, president of the Board. **Elvin D. Imes**, M.D., Maryville, was chosen vice president, and **W. O. Finney**, M.D., Chaffee, secretary-treasurer.

"X-rays and Laboratories" was the topic of the August radio program of the Buchanan County Medical Society, with **Caryl A. Potter**, M.D., the moderator, and Drs. **Joseph L. Fisher, Fred L. Nelson** and **Richard V. Riddell** the participants.

The Moberly Rotary Club had as its speaker on July 5, **J. Will Fleming, Jr.**, M.D., Moberly, who spoke on "How to Live Longer."

Medallions of "25 years of distinguished service in the care of the sick poor in St. Louis County" were presented to **E. Lee Dorsett**, M.D., and **Leo A. Will**, M.D., at the annual meeting of the staff of St. Louis County Hospital on July 16.

The Pettis County Chapter, Missouri Society for Crippled Children, recently elected **A. L. Lowe**, M.D., Sedalia, as president.

"Hardy Day" was held in Sumner on July 3 to honor **John W. Hardy**, M.D., Sumner, who became 94 years old on June 26. About 500 persons attended the ceremonies.

An 18 year old Japanese boy is being brought to St. Louis to study medicine by **Gene Grabau**, M.D., St. Louis. Dr. Grabau met Haruo Kusama shortly after World War II while serving with the United States occupational forces in Japan.

The Mount Vernon Rotary Club recently honored Prince Albert Holmes, M.D., at a luncheon meeting for more than fifty years public service to the citizens of Lawrence County.

Approximately 350 persons attended a reception in honor of **C. L. Parkhurst**, M.D., Houstonia, held at the high school building in Houstonia.

The appointment of **James W. Willoughby**, M.D., Liberty, to the State Board of Medical Examiners to fill the unexpired term of the late Edwin C. White, M.D., was announced in July.

The American Academy of Pediatrics recently appointed **H. Ewing Wachter**, M.D., St. Joseph, to the committee on hospitals.

Speaker at a meeting in June of the Sedalia Kiwanis Club was **W. A. Beckemeyer**, M.D., Sedalia.

Recently installed as vice president of the Southwest Optimist Club, Kansas City, was **John Whiteman**, M.D. **James E. Keeler**, M.D., was elected a director of the club.

The Southern Medical Association will celebrate its Golden Anniversary with a special program at the Read House, Chattanooga, Tennessee, October 2 and 3. This will be a historical meeting and is not in connection with the annual scientific session to be held in Washington, D. C., November 12 to 15.

NEW MEMBERS

Jacqueline M. Baumeister, M.D., 4237 Brooklyn Avenue, Kansas City. Jackson County Medical Society.

Albert D. Eshelman, M.D., 3335 Ash Street, Independence. Jackson County Medical Society.

Herbert L. Ketterman, M.D., 600 East Seventy-second Street, Kansas City. Jackson County Medical Society.

Gregory Louis Pucci, M.D., 1246 Huntington Road, Kansas City. Jackson County Medical Society.

Joe L. Rector, Jr., M.D., 3716 Broadway, Kansas City. Jackson County Medical Society.

Bettie H. Simon, M.D., 5400 Arsenal Street, St. Louis. St. Louis Medical Society.

DEATHS

Loeb, Virgil, M.D., St. Louis, a graduate of St. Louis University School of Medicine, 1905; honor member of the St. Louis Medical Society; aged 73; died June 27.

O'Keefe, Charles D., M.D., St. Louis, a graduate of Washington University School of Medicine, 1918; member of the St. Louis Medical Society; aged 64; died June 28.

Cooke, Jean V., M.D., St. Louis, a graduate of Johns Hopkins University School of Medicine, 1908; honor member of the St. Louis Medical Society; aged 73; died June 30.

Davis, Robert I., M.D., Birch Tree, a graduate of the University of Louisville School of Medicine, 1909; honor member of the Carter-Shannon County Medical Society; aged 86; died July 1.

REFRESHER COURSES EXEMPT

A regulation became effective August 9 providing that expenditures for education are deductible if they are for a "refresher" or similar type of course taken to maintain the skills directly and immediately required by the physician in his employment or business. An educational course to be covered should be designed for established medical practitioners to help them keep abreast of current developments in the profession; it should be of short duration; it should not be taken on a continuing basis, and should not carry academic credit. Education designed to prepare the practitioner to enter a specialty will not be acceptable. When a physician travels away from home primarily to obtain "'refresher" education, his expenditures for travel, meals and lodging while away from home are deductible.

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Councilor District News

FIRST COUNCILOR DISTRICT

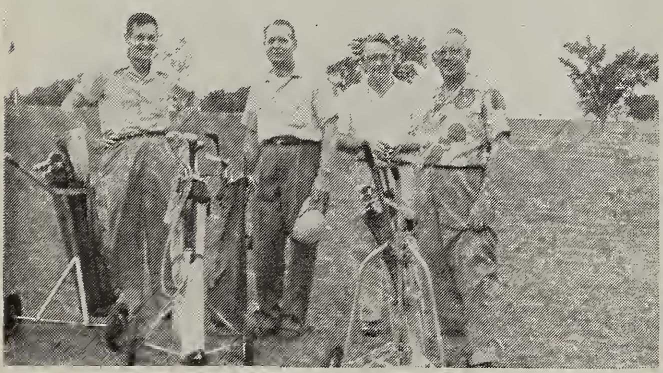
DONALD M. DOWELL, CHILLICOTHE, COUNCILOR

Grand River Medical Society

More than fifty people attended the dinner session of the Grand River Medical Society at the Country Club, Chillicothe, Thursday, June 14. This affair climaxed the Annual Golf Tournament, which was held in the afternoon. A good number of members, plus doctors from St. Joseph and Liberty, took part in the tournament. There was also one foursome of doctors' wives participating. The number one golfing prize was won by Dr. C. L. Clark of Trenton. Ways and means of beating this perennial winner are now under consideration.

Dinner and entertainment ended the day.

Members and guests teed off in the afternoon.



Some of the players stopped long enough for a picture.

Scores were checked by players.

After golf and a social hour, an excellent dinner was served. To top off the day's activities so that nothing too heavy graced the program, a few jokes and light music pulled down the curtain on another successful June Golf Tournament meeting.

E. A. Duffy, M.D., *Secretary*

FOURTH COUNCILOR DISTRICT

JOSEPH C. CREECH, TROY, COUNCILOR

Jefferson County Medical Society

Edwin G. Eigel, M.D., St. Louis, Department of Pediatrics, St. Louis University Medical School and head of the polio section of St. Anthony's Hospital, spoke at a meeting of the Jefferson County Medical Society, Friday night, June 8, at the County Health Center in Hillsboro.

Dr. Eigel discussed the timely subject of "Poliomyelitis."

John F. Rutledge, M.D., *Secretary*

FIFTH COUNCILOR DISTRICT

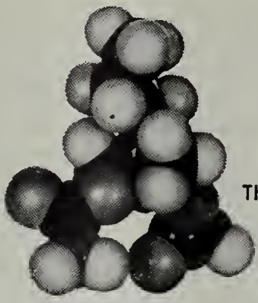
J. W. ALLEE, COLUMBIA, COUNCILOR

Audrain County Medical Society

The Audrain County Medical Society held their regular monthly meeting on June 14 in the cafeteria of the Audrain County Hospital at 7:30 p.m.

The meeting was called to order by the president, Dr. Glen Kallenbach. The minutes and treasurer's report of the previous meeting were read and approved. Dr. Bauer, Superintendent of State Hospital No. 1, Fulton, was the guest speaker.

The following doctors were present: Leonard L. Davis, M.D., Thomas L. Dwyer, M.D., Kathryn C.



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As there was no further business, the meeting adjourned at 10:00 p.m.

Ed S. Wallace, M.D., *Secretary*

NINTH COUNCILOR DISTRICT

J. H. SUMMERS, LEBANON, COUNCILOR

Mid-Missouri Medical Society

A dinner meeting of the Mid-Missouri Medical Society was held at Pippin's Resort, Waynesville, Thursday evening, June 28.

The scientific program for the evening was given by William F. Johnson, M.D., Springfield. Dr. Johnson gave an interesting and informative talk on "Office Urology." The program was presented under the auspices of the Missouri Academy of General Practice.

M. K. Underwood, M.D., *Secretary*

South Central Counties Medical Society

The South Central Counties Medical Society met for dinner Wednesday night, June 27, at the City View Cafe in Mountain Grove, with the following members and visitors present: Dr. and Mrs. S. W. Connor, Dr. and Mrs. R. W. Denney, Dr. A. C. Ames, Dr. H. G. Frame and Mrs. R. A. Ryan, Mountain Grove; Dr. and Mrs. M. B. Perkins, Dr. H. W. Miller and Dr. L. E. Walker, Willow Springs; Dr. and Mrs. D. E. Tiffany, Mountain View; Dr. T. J. Burns, Houston; Dr. and Mrs. J. N. Wiles, West Plains; Dr. and Mrs. A. T. Walker, Mammoth Springs, Arkansas; Dr. and Mrs. B. W. Cooper, Thayer; and Dr. Tom Ashley and Dr. Frank Sundstrom, Springfield.

After dinner the ladies went home with Mrs. Denney for the evening, and Dr. Wiles, the president, called the meeting to order and the minutes of the last meeting were read and approved.

The application of Dr. Tiffany for membership was presented, together with a check for dues, but as none of the Board of Censors was present, it was left over to the next meeting. Dr. L. E. Walker also had his application made out but forgot to bring it so it was also left over. There was some talk on a fee bill but no action was taken.

The meeting was then turned over to Drs. Sundstrom and Ashley who spoke on "Injuries and Diseases of the Large Arteries of the Lower Extremities" and showed pictures of conditions often overlooked.

Dr. Wiles expressed thanks and appreciation of the Society, and the meeting adjourned to meet for a picnic at Dr. Cooper's camp on Spring River below Mammoth Springs the third Thursday in July.

A. C. Ames, M.D., *Secretary*

TENTH COUNCILOR DISTRICT

BEN M. BULL, IRONTON, COUNCILOR

Semo County Medical Society

The Semo County Medical Society celebrated "Dr. Sam Martin Day" at the Country Club, Sikeston, Thursday, June 28. Dr. Sam from East Prairie was honored on this occasion for completion of fifty years in the practice of medicine. He has another signal accomplishment in having two sons who are also doctors of medicine.

The day's festivities began at 1:00 p.m. with a doctor's golf tournament. There were four foursomes taking part in the tournament. In addition, a number of doctors' wives took advantage of the golfing opportunity.

All doctors who are members of the Tenth Councilor District of the Missouri State Medical Association were invited to attend both afternoon and evening affairs.

The evening session began with a social hour, then dinner, and the formal program. At this time, Dr. A. L.

Meeting and dinner were well attended.

The speaker was Mr. Blanton.

Dr. Sam Martin was guest of honor.

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Golf in the afternoon preceded the meeting.

May, Jr., Poplar Bluff, was presented a trophy as winner of the golf tournament.

The featured speaker of the evening was Mr. Charles L. Blanton, Jr., Editor and Publisher of the *Daily Sikeston Standard* of Sikeston, who spoke on "The Doctor and Analysis Of."

The closing remarks were given by "Dr. Sam" who told of some interesting experiences and observations from his many years of practice. He was frank in giving much credit to his wife for the great help she had been to him. Mrs. Martin was also present to enjoy the full day's celebration.

The attendance for the occasion numbered fifty.

THELMA BUCKTHORPE, M.D., *Secretary*

MISSOURI ACADEMY OF GENERAL PRACTICE

The Missouri Academy of General Practice will hold its Eighth Annual Assembly in Jefferson City, October 24 and 25. The program for the session follows:

WEDNESDAY, OCTOBER 24

8:00- 9:00 a.m.	Registration and Exhibits
9:00-11:00 a.m.	Business meeting.
11:00-12:00 a.m.	William D. Stroud, M.D., Chairman of the Department of Cardiology and Professor of Cardiology, Graduate School of Medicine, University of Pennsylvania; Past President of the American Heart Association; Chief of Staff of Children's Heart Hospital, Philadelphia.
12:00- 1:30 p.m.	Luncheon. Speaker: Mr. Mac F. Cahal, Executive Secretary American Academy of General Practice.
1:30- 2:00 p.m.	Exhibits.
2:00- 3:00 p.m.	Jerome A. Urban, M.D., Staff Memorial Hospital, New York City; Staff James Ewing Hospital, New York City; Instructor in Surgery, Cornell University Medical College; Assistant, Sloan Kettering Institute.
3:00- 3:30 p.m.	Exhibits and coffee.
3:30- 4:15 p.m.	Carl Moore, M.D., St. Louis, Missouri, Busch Professor of Medicine and Head of Department, Washington University; Dean, Washington University

School of Medicine, March 1954-September 1955; Chairman of the Blood and Blood Derivatives Committee of the National Research Council.

4:15- 5:00 p.m. CPC-Joseph E. Flynn, M.D., Professor and Chairman, Department of Pathology, University of Missouri School of Medicine, Columbia, Missouri; former Associate Professor, Department of Pathology, Columbia University, New York City, New York.

5:00 p.m. Exhibits.

7:30 p.m. Banquet—Speaker: J. S. De Tar, M.D., President of The American Academy of General Practice.

THURSDAY, OCTOBER 25

8:30- 9:30 a.m. Insurance Seminar, Dr. Eugene Henschel, St. Louis, presiding.

9:30-10:30 a.m. James P. King, M.D., Assistant Professor of Pediatrics, St. Louis University Medical School.

10:30-11:00 a.m. Exhibits.

11:00-12:00 a.m. William Stroud, M.D.

12:00- 1:30 p.m. Luncheon and roundtable discussion, Doctors King, Stroud and Urban participating.

1:30- 2:00 p.m. Exhibits.

2:00- 2:50 p.m. G. S. Lodwick, M.D., Professor and Chairman, Department of Radiology, School of Medicine, University of Missouri; formerly Associate Professor in Radiology, College of Medicine, State University of Iowa.

2:50- 3:40 p.m. Robert Myers, M.D., Past President, Missouri Academy of General Practice.

3:40- 4:30 p.m. Jerome A. Urban, M.D.

Adjourn.

KANSAS CITY SOUTHWEST CLINICAL SOCIETY

Fifteen distinguished guest speakers from various cities will participate in the 34th Annual Fall Conference of the Kansas City Southwest Clinical Society to be held September 24 to 27, Municipal Auditorium, Kansas City, Missouri, with lectures, panel discussions, CPC, color television, and daily luncheon quiz periods (see page 766).

Tuesday's entertainment will be held in the spacious Pla-Mor with a buffet supper following the social hour. Fifty members of the Kansas City Philharmonic Orchestra will present a Pop Concert of favorite light classical and popular selections, including encores, during which time the audience is welcome to hum, sing or dance as accompaniment figures! The informality of the entire program predicts a highly successful evening of entertainment for everyone present, with ample space and facilities for the social and buffet hours, excellent food, popular music and, for those desiring to dance, a twelve-piece dance band playing during the closing hours. Your dues include the cost of the buffet supper and entertainment.

The September issue of the *Kansas City Medical Journal,* reaching your desk early in September, carries the complete program of this Conference.

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STUDY OF HOSPITAL AND NURSING HOME NEEDS IN MISSOURI

COMMUNITY STUDIES, INC., *Kansas City*

Are there enough hospital beds in Missouri? Enough nursing home beds? How many long-term patients are in acute hospital beds only because there are no other satisfactory places in which they can receive care? How realistic are the service areas outlined in the State Plan for hospital and nursing home construction? If we build more hospitals in rural areas, can enough nurses and other trained staff be found to work in them?

Physicians have not been alone in raising these questions, but the money needed for a study to obtain the answers has not been available until now. Recently however, Community Studies, Inc., a private, nonprofit research group which has been conducting for three years a survey of those with chronic conditions in Kansas City who need rehabilitation services, has received a grant from the Public Health Service to conduct this hospital study in Missouri and in Kansas. Community Studies wants the advice and assistance of practicing physicians in planning and carrying out this study and has asked the Medical Association about obtaining such assistance.

The main objective of the study is to determine the needs of the region for beds in general hospitals and chronic disease facilities, including nursing homes, with especial attention to the needs of the chronic and aged sick.

The study will be carried out in four stages, and the first two will be of direct interest to Missouri physicians. In the first stage, a trained interviewer will visit each hospital in the state (except those in St. Louis City and County) to learn the characteristics of the patients who are there on the day of the visit. Information on the residence of the patients will show how far they travel to get to the hospital and will help in defining realistic service areas. Knowledge about the type of room which the patient is using will show whether empty beds are in 1-bed, 2-bed, or larger rooms. Information will also be gathered on age, sex, admission diagnosis of the patient, and on whether he has Blue Cross or other hospital insurance. Since the study is especially concerned with chronic or long-term illness, the interviewer will ask about the surgical, laboratory, or other procedures used for patients who have been in the hospital 30 days or more. In addition, data will be recorded on the size and type of hospital and the services available there.

A coded method of recording will be used by the interviewer so that the patient will be anonymous; the doctor will not be recorded; all information secured in the survey will be used for statistical purposes only.

Each licensed nursing home will also be visited by an interviewer, who will ask about the patient's usual activities (whether he is bedfast, can walk, can leave the grounds by himself). The interviewer will record the date when a physician was last seen, and whether each patient has a private physician. He will also ask how many welfare clients are in the home, the type of staff and services provided by the home, and its monthly charge.

These interviews with hospitals and nursing homes will be carried out for a ten-month period beginning in September.

A second step in the study is a household survey which will begin in September. In this, interviewers will visit a sample of 4,000 households in rural and urban areas in Missouri and in Kansas. These interviewers will ask how many of the people in the household have chronic conditions, what kind of conditions, how long they have had them, and how much disability they have caused. They will also ask how many of these people have been hospitalized during the past 12 months and where they went for this hospitalization.

The household interviews are expected to take four or five months. Through these surveys of people in institutions and at home, they hope to find, for example, how many chronic and aged sick need nursing care.

A third step in the study will be carried out in Kansas City. In this, interviewers will visit a sample of about 300 people found in the survey to have chronic disease for a 12-month period beginning in September to see what services they use during this period.

These three steps in the study will be completed in the first year. During the second year the data gathered will be analyzed and reports will be issued. While this work is going on, the Medical Director of the study will work out arrangements for an experimental program with a few hospitals and nursing homes which volunteer to cooperate in the study. These programs will explore whether there are practical and effective methods of moving the chronic and aged sick from the general hospital into a less expensive facility affiliated with the hospital, except for those periods when they need acute hospital care.

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organomercurial diuretics "...permit ingestion of enough salt to make food palatable; without them, many patients would lose their appetites, a consequence of the salt-free diet which has occasionally been known to cause serious malnutrition."*

*Modell, W.: The Relief of Symptoms, Philadelphia, W. B. Saunders Company, 1955, pp. 265-266.

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From the Medical Schools

WASHINGTON UNIVERSITY

Honors

Dr. E. V. Cowdry, director of the Wernse Laboratory of Cancer Research at the medical school, recently received one of three annual awards for outstanding work in gerontology presented by the American chapter of the Gerontological Research Foundation. Dr. Cowdry was cited for organization and coordination of thinking in the field of gerontology.

Dr. Ira J. Hirsh, research associate in audiology in otolaryngology, recently received the Biennial Award of the Acoustical Society of America in "Recognition of outstanding contributions to the science of acoustics." The presentation was made at a joint meeting of the society and the Second International Congress on Acoustics in Cambridge, Mass. The award is presented every second year to a member of the Acoustical Society, not more than 35 years of age, who "has contributed substantially, through published papers, to the advancement of theoretical or applied acoustics."

The Missouri Psychological Association recently named Dr. Ivan N. Mensh, associate professor of medical psychology and psychologist in the dean's office, as president-elect at a meeting in Columbia.

Fellowships

Summer research fellowships were awarded to thirty-five students at Washington University School of Medicine. Funds for these fellowships come from the departments of the medical school and the Jackson Johnson scholarship fund, supplemented by grants from the Josiah Macy Foundation, the National Science Foundation, Lederle Laboratories, the U. S. Public Health Service and the Tobacco Industry Research Committee.

A freshman student, Jay J. Kuten, worked under Dr. Paul Yacovlev at the Warren Anatomical Museum at the Harvard Medical School; and a sophomore student, Bryce L. Munger, worked in the department of anatomy at the University of Washington, Seattle, under Dr. H. Stanley Bennett. All other fellowship winners were engaged in research in one of the departments at the Washington University School of Medicine under the direction of either the chairman of the department or a staff member of that department.

Freshman winners in addition to Kuten were: Richard D. Aach, William F. Bridgers, Farrell M. Calton, Richard M. Colbert, James K. Cordonnier, Robert H. Laatsch, Eugene L. Nagel, Allen G. Parelman, Morris Reichlin, Raymond Schultze, Robert G. Smith, Richard E. Thompson and David L. Winter. In addition to Munger sophomores engaged in research were: Oliver J. Biederman, Benjamin A. Borowsky, Malcolm B. Bowers, Jr., Richard E. Bryant, George E. Broman, Jr., Michael Gass, Kenneth W. Gentsch, Mickey L. Gulick, Mrs. Mary Nishi Harkness, David M. Kessner, Jerome F. Levy, Robert I. Lindemeyer, Ronald K. McGregor, Sidney M. Richman, David L. Sessions, Jerome L. Silverman and Joe R. Williamson. Junior students were: Jack Kayes, Lewis J. Thomas, Jr., and Miss Barbara Nancy Voege.

Resignations

Dr. Robert F. Furchgott, former associate professor of pharmacology at the medical school, resigned recently to become professor and chairman of the new department of pharmacology at the State University of New York College of Medicine in New York City. Dr. Furchgott joined the faculty at Washington University in 1949 as an assistant professor and was appointed to his present position in 1952. In his new post Dr. Furchgott is responsible for expanding the teaching staff and developing research and educational projects in his department. The department of pharmacology previously was a subdivision of the department of physiology at the State University College of Medicine but now will assume equal departmental status with the other basic sciences.

Dr. C. Barber Mueller, who formerly was assistant professor of clinical surgery at the medical school, has been appointed the first full-time professor and chairman of the department of surgery at the State University College of Medicine in Syracuse, N. Y. Dr. Mueller assumed his new position in August.

Travel

Dr. Evarts A. Graham returned recently from Mexico where he participated in the second conference of the staff and alumni of the Instituto Nacional de Neumologia held June 12-16. Dr. Graham presented two papers: "The Etiology of Lung Cancer" and "Clinical Features and Treatment of Lung Cancer" at the five day meeting. He also presided at two sessions and was the moderator for a roundtable discussion on the treatment of pulmonary tuberculosis. The director of the Instituto, Dr. L. J. Gomez Pimienta, formerly studied with Dr. Graham here.

Dr. E. V. Cowdry, director of the Wernse Laboratory of Cancer Research at the medical school, attended the recent Federal-State Conference on Aging held in Washington, D. C. Dr. Cowdry, representing the Veterans Administration at the conference, served as a consultant on the medical problems of aging. He is the chairman of the Veterans Administration's committee on aging. The conference was sponsored jointly by the Council of State Governments and the Federal Council on Aging, which was established in April by the President to coordinate the various programs for the aged conducted by the federal, state and local governments.

On June 9 Dr. Ben H. Senturia, associate professor of clinical otolaryngology at the medical school, presented a paper on the "Evaluation of Factors Which May Be of Importance in the Production of External Ear Infections" at a meeting of the Society of Investigative Dermatology in Chicago. He also discussed a paper at a meeting of the section on dermatology and syphilology of the American Medical Association in Chicago on June 14. Dr. Joseph C. Edwards, instructor in clinical medicine, had an exhibit on the management of the hypertensive patient at the AMA meeting. Recently Dr. Edwards also participated in a panel discussion on hypertension at the thirteenth annual meeting of the American Geriatrics Society held in Chicago.

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Dr. Robert J. Glaser, associate dean of Washington University Medical School, returned recently from a six week tour of medical schools in Mexico, Central and South America. Dr. Glaser and Dr. Clifford G. Grulee, assistant dean of Tulane University School of Medicine, visited twelve medical schools in their study of medical education in Latin America. The tour was sponsored by The Rockefeller Foundation. Recently Dr. Glaser was elected to a three year term on the Harvard Medical Alumni Association Council. Each year one member is elected to the council from the New England states and one from the rest of the country. Dr. Glaser was graduated from Harvard Medical School with high honors in 1943.

SAINT LOUIS UNIVERSITY

Promotions

Twenty-eight advancements in academic rank of faculty members at the School of Medicine have been announced by the Very Rev. Paul C. Reinert, S.J., President of the University, effective September 1. Promotions in clinical rank are as follows: associate professor of clinical gynecology and obstetrics, Dr. William H. Vogt, Jr.; associate professors of clinical medicine, Dr. Joseph V. Finnegan, Dr. James G. Janney, Jr.; associate professor of clinical otolaryngology, Dr. William B. Harkins; assistant professor of clinical gynecology and obstetrics, Dr. Joseph M. Krebs; assistant professors of clinical medicine, Dr. Robert E. Fox and Dr. Charles W. Miller; assistant professor of clinical pediatrics, Dr. C. K. Hamilton; assistant professors of clinical urology, Dr. Louis N. Berard, Dr. E. Humber Burford and Dr. Stephen M. Tapper; senior instructors, Dr. Louis Keller in dermatology, Dr. George Anstey in gynecology and obstetrics, Dr. Dallas J. Dyer in internal medicine, Dr. Frank J. Manganaro in internal medicine, Dr. Thomas W. Parker in internal medicine, Dr. George E. Thoma in internal medicine, Dr. George H. Lawrence in neurology and psychiatry, Dr. Carl Fellhauer in orthopedic surgery, Dr. Robert E. Funsch in orthopedic surgery, Dr. Walter P. Graul in orthopedic surgery, Dr. Bart Cole in orthopedic surgery, Dr. Eugene F. Tucker in pathology, Dr. John P. Pfaff in pathology, Dr. Robert J. Burke in pediatrics; Dr. Frank A. Palazzo in surgery, Dr. R. Dean Woolsey in surgery, and Dr. John F. Mackey in urology.

General

Dr. Alrick B. Hertzman, director of the Department of Physiology, attended a conference with the personnel of the Arctic Aeromedical Laboratory at Ladd Air Force Base in Alaska on the physiology of cold and on the mission of the laboratory in the field of arctic medicine June 11 to 15.

Dr. Erwin E. Nelson, director of the Department of Pharmacology, has been invited to accept reappointment to the Committee on Drug Addiction and Narcotics of the National Research Council. Dr. Nelson's appointment became effective July 1. He has been on the committee for eight years.

Dr. Charles H. Dahm, Jr., who was awarded his M.D. degree in June was the recipient of the annual Borden Award for the best original work submitted by a senior medical student at the Saint Louis University School of Medicine. Dahm received a prize of $350 at the

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Nov. 1
(1:00 P.M.) Evaluation of Adult Patients for Cardiac Surgery

Nov. 2
(9:00 A.M.) Syncope and Coma in Cardiovascular Disease—A Common Clinical Problem

Nov. 2
(1:00 P.M.) Newer Aspects of Rheumatic Fever

November 1-2, 1956

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school's senior banquet held at the University Club. Dr. Dahm, who is interning at the St. Mary's Group of Hospitals at the University, won the award for his research work on the biochemical investigations of cancer, in which certain defects in the metabolism of tumors were studied. Dr. Dahm worked on the project under the direction of Dr. Ralph Strength, senior instructor in biochemistry. The prize winning paper was selected by a committee composed of Dr. Edward A. Doisy, Jr., assistant professor of internal medicine; Dr. R. Walter Schlesinger, director of the Department of Microbiology, and Dr. Ralph Kinsella, Jr., assistant professor of internal medicine.

Dr. Ronald V. Erken, now interning at Letterman Army Hospital in San Francisco, was the first student in the history of the School of Medicine to be awarded his M.D. and M.S. degrees at the same commencement in June. Dr. Erken ranked first in his graduating class. Dr. Erken worked for his M.S. degree under the direction of Dr. Hertzman. His research involved a study of the reflex responses of cutaneous blood vessels to the application of heat. During Dr. Erken's years of research study he held a United States Public Health Service Research assistantship in physiology.

UNIVERSITY OF MISSOURI

Trips and Talks

Dr. John M. Franz, instructor in the Department of Biochemistry, attended the meeting of the Endocrine Society in Chicago, Illinois, June 6 through June 10.

Dr. Robert L. Jackson, professor and chairman of the Department of Pediatrics, gave a talk entitled, "What Is a Healthy Child?" at a meeting of elementary school teachers in Columbia on July 11.

Dr. W. A. Sodeman, professor and chairman of the Department of Medicine, gave a seminar on "Teaching of Geriatrics" to the University of Michigan 9th Annual Conference on "Aging," in Ann Arbor, Michigan, on July 9 to 11.

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Dr. Frank B. Engley, Jr., professor and chairman of the Department of Microbiology, visited the VA Hospital in Temple, Texas, and the Burn Research Center in San Antonio as consultant June 20 to 23. Dr. Robert Keller, assistant professor of microbiology, visited the University of Pennsylvania on July 9 for a consultation on a research problem currently being carried on.

Dr. M. Pinson Neal, professor of pathology, gave a talk at Houstonia, Missouri, entitled, "Medical Progress During the Past Fifty Years" on June 24 at the community celebration of fifty-four years of medical practice in Houstonia, Missouri, by Dr. Charles L. Parkhurst, a Missouri University Alumnus of 1899 (B.S.) and 1901 (M.D.).

Missouri State Medical Secretaries and Assistants Society

Edna M. Williams, *President*

For several months it has been interesting to note the number of state medical associations asking for information concerning the organization of societies for medical secretaries and assistants. Many of the inquiries have come to the officers of this society on referral by the American Medical Association, Department of Public Relations.

The Missouri State Medical Secretaries and Assistants Society was organized in 1951. It has made much progress in the last five years, although the increase in membership has been slow. Until such time that work shops, or district meetings, can be arranged throughout Missouri, women employed in offices of doctors will not know of the excellent program offered by our Society. The district Councilors have accepted the responsibility of making contact in counties where we have no organized groups, and it is hoped enough interest will be created that new societies will come into being this year.

The medical societies can give much assistance in forming societies for the medical secretaries and assistants. They can help to form policies and to set up well-rounded programs. The American Medical Association has prepared packets on program planning, and will supply literature upon request.

Many of our Missouri doctors have taken an active interest in this society by serving as advisors, or appearing as guest speakers. They are well aware of our program, and are in favor of it. We appreciate the valuable time given by these men of medicine, and look forward to welcoming others. As each of you becomes interested in this society, so will you interest your assistants in being members of a society that has the following four objectives under its Constitution: (1) to establish higher standards of efficiency among women employed as medical secretaries and assistants, (2) to promote educational programs adapted to the work of the members, (3) to stimulate a feeling of fellowship between the members of this society and the medical society, and (4) to strive to further the medical public relations program.

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A.M.A. Highlights and Transactions

(Continued from page 786)

Heard Dr. Carl A. Lincke, of Ohio delegation, present a resolution which would rescind present A.M.A. policy that use of radioisotopes be restricted to radiologists. It was rejected in favor of a compromise whereby a committee will be named to study this jurisdictional dispute and file a report at the clinical session in Seattle.

Prior to the meeting, Missouri Delegates were contacted on only one issue, the matter of straight internships. The Section on Obstetrics and Gynecology introduced a resolution resolving that the A.M.A. Council on Medical Education and Hospitals review and reconsider the present policy of disapproving all straight internships except those in medicine, surgery, pathology and pediatrics and abolish all straight internships in all hospitals and in all medical specialties and for all graduate medical students and until such time as those straight internships are all abolished, a straight internship in obstetrics and gynecology be continued. In addition, resolutions were introduced on the rotating internship and advocating disapproval in the internship "One Quarter Rule." The House of Delegates took the attitude that reestablishment of the straight internship in obstetrics and gynecology would be a step backward since it is just a matter of time until all straight internships are abolished and therefore took no action on these resolutions.

The A.M.A. Auxiliary, and the Utah and Illinois Medical Associations presented checks to the American Medical Education Foundation which they had received through collections and/or donations. This brings the Illinois contribution to well over $700,000. Missouri should consider methods of instituting stronger support of AMEF.

Recommended that the Board of Trustees select New York City as the place of the 1961 annual meeting. The House also approved the following places and dates for the Annual and Clinical Meetings of the Association:

Annual Meetings: 1957, New York, June 3-7; 1958, San Francisco, June 23-27; 1959, Atlantic City, June 8-12; 1960, Chicago, June 6-10.

Clinical Meetings: 1956, Seattle, November 27-30; 1957, Philadelphia, December 3-6; 1958, Minneapolis, December 2-5.

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Editorial

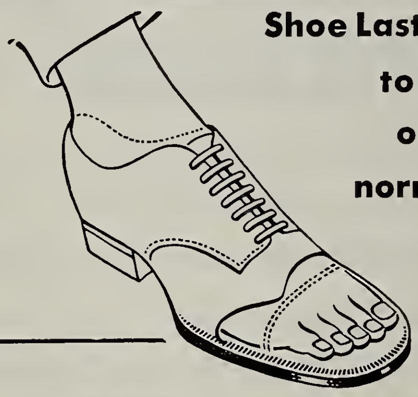
(Continued from page 792)

ual physician despises the thought of a "standard fee schedule" or someone else setting his fee for a given procedure. As much as one may dislike the thought, it does not appear either desirable or feasible for organized medicine in Missouri to refuse to meet this demand.

Organized medicine is rightfully committed to a fair, just and equitable fee; to free choice of physician; to insurance as a system of budgeting for illness—and in Missouri to a standard fee schedule for Veterans and Service Dependents; and in Kansas City Blue Shield Plan to a standard fee schedule for low income groups.

Whatever the position finally taken by Missouri medicine, it must be defended as that best for the public, not for the physician. In view of the national trend to service type plans, many sponsored by organized medicine; the rapidly expanding pressure by organized labor and industry for service type plans; the most recent addition of service type plan for military dependents, and last but not least the public demand for service type plans for low income groups, a careful appraisal of the situation is advisable before any definitive action is taken.

Avery P. Rowlette, M.D.
Chairman, Committee on Medical Economics



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Curiosa et Trivia

William B. McCunniff, M.D.

Dr. John Archer, the first American medical school graduate (Pennsylvania, 1768), achieved his position by virtue of alphabetical order in a class of ten. The cost of their two principal medical school courses was eleven pistoles, Spanish coins worth about $4 apiece at that time.

A recent A.M.A. survey showed that only on questions of income and fees do doctors have more favorable opinions of themselves than people have of their own doctors.

Your best chance of avoiding seasickness, aside from staying ashore, is by being under 25, slightly thin, traveling midship on a second or third voyage, and taking any one of the several anti-motion-sickness drugs.

An electronic device, IBM 702, has turned out about 42,000 potentially useful names for drug products. The names are the end result of thirty groups of word endings with sets of first syllables, allegedly easily spelled and remembered. Some have been rejected due to lack of social acceptability, since the machine has no built-in inhibitions.

The frighteningly common, and typically American, disease, coronary thrombosis, is a relative newcomer in the books. Chicago physician James B. Herrick read his first paper on acute coronary obstruction May 12, 1912. He stated that his report had "fallen like a dud." Not until 1918 did he return to state his case and to be appreciated for his observations.

Capsule Clinics

I. A. Wien, M.D.

- Surgery in the aged should never be taken lightly and requires the most meticulous preoperative study, the most exacting surgical judgement, and the most careful postoperative management. LaDue, J. S.: Bull., New York Acad. 32 (June) 1956.
- Surgery for diaphragmatic hernia is only indicated for the following reasons: recurrent severe pain or vomiting, recurrent esophagitis, esophageal ulceration, and bleeding. Stephenson, S. L., Jr., and Posey, E. L., Jr.: Am. J. Gastroenterol. 25 (January) 1956.
- There is yet little statistical proof that the addition of groin dissection to abdominoperineal resection will appreciably increase the five year survival rate in epidermoid carcinoma of the anus. Colcock, B. P.: Lahey Clin. Bull. 9 (October) 1955.
- Bile peritonitis in the immediate postcholecystectomy period may be due to an injured accessory hepatic duct, from the cystic duct stump, or from the common duct (it may rupture or be cut). Berk, J. E., and Alexander, L. C.: Med. Clin. North America 40 (March) 1956.

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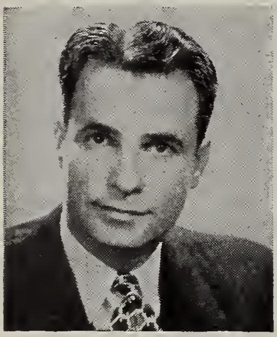
Missouri Medicine in Review

Leo H. Pollock, M.D.

FORTY YEARS AGO



Aspirin.—The patent on aspirin will expire next year. The Bayer Company, the American agents, view with disfavor the prospect of losing the right to the sole manufacture of acetylsalicylic acid. This may explain the campaign of publicity which the Bayer Company has inaugurated in the lay press in which the public is urged to buy the Bayer brand of acetylsalicylic acid (aspirin) only. There can be no better time than the present for the medical profession to substitute for the non-descriptive name "aspirin" the descriptive and correct name acetylsalicylic acid. (J.A.M.A., Aug. 12, 1916, p. 515.)

In the *Literary Digest* for August 19, 1916, comment is made upon the official rejection by Justice John W. Goff, of the New York Supreme Court, of the Binet-Simon scale for measuring mental development. The tests themselves, as the Justice correctly remarks, "seem to imply an arbitrary standard of mental requirement."

Dr. J. S. Wallace, Brunswick, a graduate of Bellevue Hospital Medical College, 1873, Vice-President of the Missouri State Medical Association, 1912, and state senator from the Sixth District since 1914, died suddenly from heart disease while at the bedside of a patient, Aug. 24, 1916, aged 67 years.

Parke, Davis and Company announce the celebration of the Golden Jubilee on October 26. The house has kept pace with the wonderful advances made by the science of medicine during the last fifty years.

The strike fever made its annual visit to the St. Louis City Hospital and struck the interns who threatened to strike because one of their number had been stricken from the rolls and discharged. Dr. Shutt, Hospital Commissioner, had a striking interview with the would-be strikers and explained that the discharged intern had been guilty of discourteous conduct toward the superintendent of nurses. So there was no strike.

The Seventh Annual Meeting of the Clinical Congress of Surgeons, under the presidency of Dr. C. H. Mayo, Rochester, Minn., will convene at Philadelphia, Oct. 23-28. For information address Dr. Franklin H. Martin, Secretary, 30 N. Michigan Ave., Chicago.

Michigan State Medical Society has increased the annual assessment of the members of the component county medical societies from $3 to $3.50 per annum, including subscription to the *Journal*. The *Michigan State Medical Journal* occupies a notable position in the forefront of state medical journals.

The September number of the *Journal of the Medical Society of New Jersey* contains the proceedings of the sesqui-centennial of the State Society—the oldest state medical association in this country. The Medical Society of New Jersey had its origin in Middlesex County, July 23, 1766.

Sometime ago a news dispatch from Nevada, Mo., said that violations of the law in that flourishing city had decreased so materially that Mayor Dulin and the city council decided that a police judge had become a luxury instead of a necessity so the council passed an ordinance to abolish the office, which carried a salary of $500. In the place of the police judge a justice of the peace was named to perform the duties of that office. Mayor Dulin is one of the most distinguished physicians in Nevada and a member of our Association.

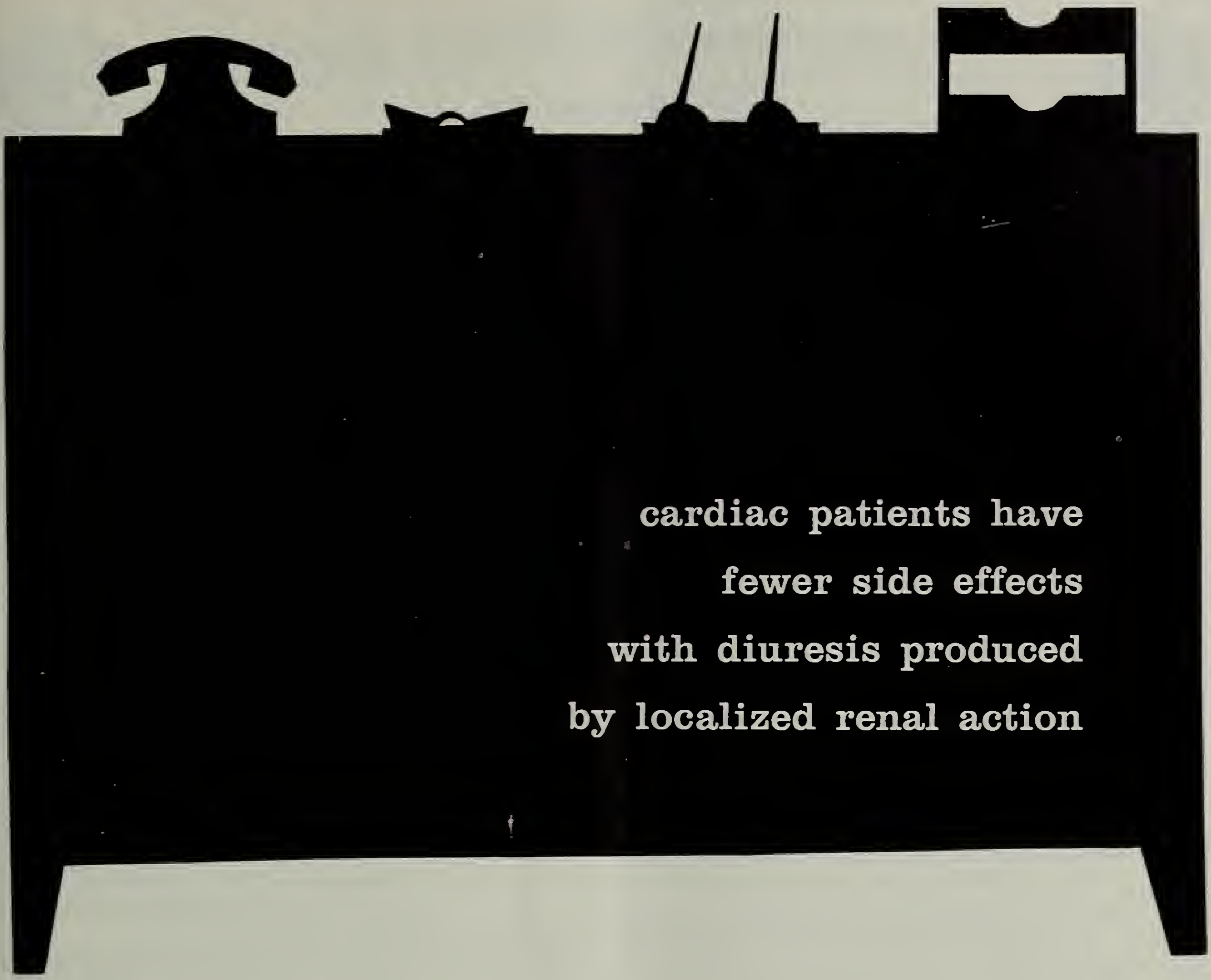
TWENTY-FIVE YEARS AGO

A method of making visible the germs hitherto ascribed to filterable viruses, was announced by Prof. Arthur I. Kendall, Evanston, Illinois, Northwestern University Medical School, in the Patten Lecture at that school July 22. Instead of using the usual culture medium of decomposition products of protein, he duplicated conditions in the living person by using cultures of fresh pieces of small intestine. The existence of disease organisms in two forms, one visible but filterable, was reported in 1929 by Dr. Philip Hadley of the University of Michigan.

The death of Aristides Agramonte in New Orleans August 17 marks the passing of one of the illustrious pioneers of preventive medicine. Dr. Aristides Agramonte was the last of the four scientists to whom is credited the practical eradication of yellow fever although the organism has never been positively isolated. Early in the spring of 1900, during the occupation of Cuba by the United States, a commission to control yellow fever was appointed by Surgeon-General Sternberg, himself one of the most energetic students of the disease. Dr. Walter Reed, then professor of bacteriology in the Army Medical School, was placed in charge. Dr. James Carroll, Dr. Jesse W. Lazear and Dr. Agramonte were the other members. The first to announce definitely the theory that yellow fever was transmitted by the mosquito was Dr. Carlos Finlay of Havana. He asserted that yellow fever was transmitted by the Stegomyia mosquito.

Mrs. A. B. McGlothlan, St. Joseph, was installed as president of the Woman's Auxiliary to the

(Continued on page 832)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Missouri Academy of General Practice

J. H. Trolinger, M.D.

The Missouri Academy of General Practice will hold its Eighth Annual Assembly in Jefferson City, October 24 and 25. The program for the session follows:

WEDNESDAY, OCTOBER 24

8:00- 9:00 a.m. Registration and Exhibits
9:00-11:00 a.m. Business meeting.
11:00-12:00 a.m. William D. Stroud, M.D., Chairman of the Department of Cardiology and Professor of Cardiology, Graduate School of Medicine, University of Pennsylvania; Past President of the American Heart Association; Chief of Staff of Children's Heart Hospital, Philadelphia.
12:00- 1:30 p.m. Luncheon. Speaker: Mr. Mac F. Cahal, Executive Secretary American Academy of General Practice.
1:30- 2:00 p.m. Exhibits.
2:00- 3:00 p.m. Jerome A. Urban, M.D., Staff Memorial Hospital, New York City; Staff James Ewing Hospital, New York City; Instructor in Surgery, Cornell University Medical College; Assistant, Sloan Kettering Institute.
3:00- 3:30 p.m. Exhibits and coffee.
3:30- 4:15 p.m. Carl Moore, M.D., St. Louis, Missouri, Busch Professor of Medicine and Head of Department, Washington University; Dean, Washington University School of Medicine, March 1954-September 1955; Chairman of the Blood and Blood Derivatives Committee of the National Research Council.
4:15- 5:00 p.m. CPC-Joseph E. Flynn, M.D., Professor and Chairman, Department of Pathology, University of Missouri School of Medicine, Columbia, Missouri; former Associate Professor, Department of Pathology, Columbia University, New York City, New York.
5:00 p.m. Exhibits.
7:30 p.m. Banquet—Speaker: J. S. De Tar, M.D., President of The American Academy of General Practice.

THURSDAY, OCTOBER 25

8:30- 9:30 a.m. Insurance Seminar, Dr. Eugene Henschel, St. Louis, presiding.
9:30-10:30 a.m. James P. King, M.D., Assistant Professor of Pediatrics, St. Louis University Medical School.
10:30-11:00 a.m. Exhibits.
11:00-12:00 a.m. William Stroud, M.D.
12:00- 1:30 p.m. Luncheon and roundtable discussion, Doctors King, Stroud and Urban participating.
1:30- 2:00 p.m. Exhibits.
2:00- 2:50 p.m. G. S. Lodwick, M.D., Professor and Chairman, Department of Radiology, School of Medicine, University of Missouri; formerly Associate Professor in Radiology, College of Medicine, State University of Iowa.
2:50- 3:40 p.m. Robert Myers, M.D., Past President, Missouri Academy of General Practice.
3:40- 4:30 p.m. Jerome A. Urban, M.D.
Adjourn.

Missouri Medicine in Review

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American Medical Association at the meeting in Philadelphia, June 8. Mrs. J. F. Owens, St. Joseph, is the national corresponding secretary; Mrs. George H. Hoxie, Kansas City, who is the retiring national president is now national program chairman; Mrs. Willard Bartlett, St. Louis, is one of the national directors, and Mrs. W. M. Bickford, Marshall, is serving on the committee of public relations.

William H. Goodson, Jr., Liberty, son of Dr. William H. Goodson, former state Senator, has been awarded the Alfred Hosmer Linder scholarship in the Harvard Medical School for outstanding freshman work in that school.

Fifty nurses and student nurses of the Missouri Methodist Hospital, St. Joseph, moved into the new nurses' home, formerly the Noyes-Baptist Hospital, September 4.

A reunion of the 850 officers, nurses and enlisted men who composed the medical detachment at the Post Hospital, Jefferson Barracks, during the years of 1917 and 1918, was held in St. Louis September 5 and 6.

TEN YEARS AGO

A recent report of the Minnesota State Board of Health states, "In 1910 there were more than three times as many deaths from tuberculosis as there were reported cases. Tuberculosis is a reportable disease, but it has never been adequately reported." The citizen may well ask why! Is a requirement of the Board of Health, having the force and effect of a law, to be disregarded with impunity?

The Missouri Legislature has approved Senate Committee Substitute for House Bill 459. The bill as enacted conforms with the national Hill-Burton bill, United States Senate Bill 191. Under the terms of the national bill, $75,000,000 of federal money is available to the states during each of the

(Continued on page 836)

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Woman's Auxiliary

MRS. CHARLES *(Susan)* SHEPHERD, *President*

As summer draws to a close, the auxiliaries point with pride to the work of some of their members.

Mrs. A. P. Stephan, State Auxiliary Chairman of Health Careers Recruitment, has had charge of setting up the "Careers" booth at the State Fair in Sedalia. The Missouri Council on Health Careers, of which the Woman's Auxiliary to the Missouri State Medical Association is a member, recently organized to develop and maintain an interest in careers in the health field and to plan a program on a statewide basis was the sponsor of this booth. It was a cooperative venture. On various days other members of the health team, such as dietitians and occupational therapists, were in the booth to distribute literature and answer questions. There were a total of eight careers represented. Members of county medical auxiliaries in and around Sedalia assisted in helping staff the booth and acted as hostesses during the Fair.

Mrs. Richard Sutter, State Co-Chairman of Health Careers Recruitment and head of the Health Education Section of Health and Hospital Division of the Social Planning Council of St. Louis, spent many long hours in helping set up a similar booth at the Mid-America Jubilee which ran through the month of September. This booth was sponsored by the St. Louis City, St. Louis County, Mound City, St. Clair and Madison County medical societies. The remainder of the booth, a 30 foot panel was designed to tell the story of medical education. Medical Auxiliary members from St. Louis City and St. Louis County under the chairmanship of Mrs. Harold Feller, with Mrs. Martin Glaser and Mrs. Paul Whitener, acted as hostesses for the entire exhibit. This required some 180 members on duty at various times during the month.

A recent letter from George Lull, M.D., Secretary and General Manager of A.M.A., neatly phrases a thought which I quote: "Medicine can take a lesson from war strategists. The only sure way to get men and material across oceans in wartime is by grouping ships together in a convoy with proper protective cover. This lesson might be applied to state and county medical societies in relation to the A.M.A. and to the joint activities of all three groups. All component units of organized medicine should go together in convoy. Success for their efforts through the central plan and harmonious action then will be assured."

This same basic philosophy applies to the Auxiliaries of the medical societies. This summer, it has been my pleasure to compile a "President's Guide," the purpose of which is to provide members of the Auxiliary with a clear understanding of the duties, objectives and functions of the Auxiliary at both the state and county level. It is necessary that all members agree on fundamental policies, principles and practices. The Fall Board Meeting was planned to clearly establish in the minds of the members the objectives we are reaching for as an ally of organized medicine. It was encouraging and pleasant to receive the acceptance of both Dr. Carl Vohs and Dr. Walter Sewell to our fall board meeting where they had an opportunity to watch the Auxiliary in action. So perhaps by this closer cooperation and understanding, our "convoy" will attain a maximum speed. Needless to say, the Auxiliary is proud to be included in the "convoy" and desires above all to keep pace.

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next five years beginning with 1947. It is expected that approximately $11,225,000 will be available for the State of Missouri.

In probably the most comprehensive report issued since streptomycin was first described in 1944, the September 7 issue of *The Journal of the American Medical Association* reviews the results obtained in the treatment of 1,000 cases of various infections with this new antibiotic drug which is derived from a soil microbe. Producers of streptomycin contributed nearly a million dollars to finance the committee's program. The drug was discovered by Dr. Selman A. Waksman at the New Jersey Agricultural Experiment Station, Rutgers University, New Brunswick. Waksman and a young assistant, Dr. Albert Schatz, came upon their discovery while working with a soil microbe called Actinomyces griseus.

Dr. Herbert L. Mantz, Kansas City, was reelected governor of the State of Missouri of the American College of Chest Physicians at the annual session of the college held in San Francisco in June.

The Kansas City Society of Anesthesiology will have a dinner meeting at 6:00 p.m., October 6, with Dr. John S. Lundy, Rochester, President of the American Society of Anesthesiology, as guest speaker. This dinner will immediately precede the opening of the Kansas City Southwest Clinical Society. Paul H. Lorhan, M.D., University of Kansas Hospitals, Kansas City, Kansas, is in charge.

Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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Vol. 53 October, 1956 Number 10

Functional Uterine Bleeding

A Modern Approach to Therapy

LEONARD H. BISKIND, M.D., and JOHN I. BISKIND, M.D., *Cleveland*

Throughout the history of medicine there has been considerable conflict between the physiologic and pharmacologic approach to therapy. This is exemplified in many obvious situations, but probably no better than in the manifold forms of therapy recommended for the treatment of functional uterine bleeding and associated conditions during the last twenty-five years.

Those who have lived through the sulfonamide, antibiotic and corticosteroid decades have recognized the need for sound skepticism in reference to new forms of therapy, at least until they appear to be thoroughly substantiated. Often one is driven to the use of new drugs by the premature national acclaim given to these substances through newspaper and magazine publicity. The eagerness on the part of society to find simple remedies for the ailments of mankind, together with the potential economic gain to be derived from the sale thereof, is almost always the cause for this prematurity.

The late 1930's saw the introduction of the sulfonamides with great fanfare; only later to discover to our dismay the dangers involved to the kidneys when certain of these compounds were administered, and the frequent failure of these chemicals to fulfill the bright predictions made for them.

Shortly thereafter, through the magnificent efforts of Fleming, it appeared that the utmost in antibacterial agents had been found. Soon, however, it became evident that physicians failed to take into consideration the great adaptability of the bacterial hosts to such agents. In addition, it was soon learned that these antibiotics had a great sensitizing effect on the human organism, leading in many instances to serious and even fatal anaphylactoid reactions.

Over the years it appears that there has been constant searching for pharmacologic substances which would counteract disease processes. We seem to have overlooked the physiologic approach, or more justly stated, the preventive approach in the treatment of many disease entities, in spite of the fact that medical literature has long been replete with evidence of its value. This approach has been treated with a form of skepticism, or to state it more accurately, with disbelief. This type of skepticism often leads to uncritical acceptance of all negative findings and equally uncritical rejection of those that are positive. True skepticism is rewarding when it is based on an unbiased evaluation of the results in any given experiment. This leads to factual reporting with sound interpretations and avoids exaggerated claims.

The material which we are about to present has been culled from the records of more than 4,000 patients successfully treated in the last fifteen years. It represents a physiologic approach to the treatment of functional uterine bleeding and allied conditions.

Evidence that estrogen is destroyed in the liver began to accumulate even before isolation of the first crystalline estrogen in 1929. Subsequently, following the initial detailed study of Zondek, several other investigators utilizing different methods, obtained results indicating hepatic destruction of estrogen.[16, 25, 26, 33, 40, 41]

In 1938, G. R. Biskind devised a technic for studying this problem in vivo. This method has developed into an extremely useful means for investigation of disturbances in hepatic function and surpasses in sensitivity any other technic thus far developed. Pellets of crystalline estrogens or an-

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From the Division of Obstetrics and Gynecology, Mount Sinai Hospital, Cleveland.

Presented at the 98th Annual Session, Missouri State Medical Association, St. Louis, April 8-11, 1956.

drogens were implanted into the spleens of castrated female or male rats. The vessels of the spleen drain into the portal circulation and the absorbed steroid must therefore pass through the liver before reaching the systemic circulation. Thus, a castrated female with a pellet of estrone or estradiol in the spleen, remains anestrous; but if the spleen containing the pellet is transplanted subcutaneously and, after development of a collateral circulation, the pedicle is ligated, the animal goes into continuous estrus. Analogous results may be obtained in the male, using the weight of the prostate and the seminal vesicles as the indicator. The livers of both male and female rats were found to inactivate both estrogens and androgens. The sensitivity of this method may be appreciated by the fact that failure of the liver to inactivate less than 0.1 microgram of estrogen per day may be detected.[8, 9, 10, 11, 12]

Since experimental and clinical studies have indicated that morphologic changes in the liver might result from a deficiency of the factors of the vitamin B complex, the aforementioned technic was applied to the problem of nutritional impairment of hepatic function. Castrated female rats with pellets of estrone in their spleens remained anestrus as long as they were maintained on a complete diet. But when they were placed on a vitamin B complex-free diet, they became estrous and remained so. Addition of brewers yeast or a mixture of thiamine, riboflavin, pantothenic acid and pyridoxine promptly restored the anestrous state and subsequent depletion again led to estrus. Thus the flow of estrogen through the liver could be controlled at will, by withholding the B complex vitamins or restoring them to the diet. However, there was no necessary correlation between the functional disturbance and morphologic changes. Failure of inactivation of estrogen occurred in livers that were normal histologically, while seriously damaged livers could continue to inactivate estrogen.[19, 20]

A subsequent investigation on the inactivation of androgen in the liver led to a different result, for there was no significant impairment of this function during vitamin B complex deficiency. Estrogen ceases to be inactivated in the liver while androgen continues to be destroyed; thus a serious alteration in the estrogen-androgen equilibrium must result in deficiency of the vitamin B factors.[21, 23]

The aforementioned observations led to the initiation of clinical investigations to determine whether there was any correlation between nutritional deficiency and the occurrence of syndromes related to excess estrogen. In the female these are menometrorrhagia, cystic mastitis, premenstrual tension, neoplasms of the breast and uterus and postpartum subinvolution of the uterus; in the male, testicular atrophy, gynecomastia, diminished libido and potency and infertility. Such a correlation was indeed found to exist. Patients with these syndromes had various indications of nutritional deficiency and the endocrine disturbances responded promptly and often dramatically to intensive, complete nutritional therapy.

The most common lesions indicative of vitamin B complex deficiency were atrophic glossitis and gingivitis with manifestations of cheilosis somewhat less common. Other visible lesions were the characteristic seborrheic ("muddy") complexion, a seborrheic, erythematous eruption about the alae nasae; keratosis toward the inner canthus of the lower eyelids; injection of the conjunctivae, marked about the periphery of the corneae; splitting of the fingernails in layers; palmar erythema; cutaneous vascular "spiders"; and occasionally actual pellagrous dermatitis, involving the malar areas of the face in the typical "butterfly" distribution, or the ears, hands, wrists, elbows, ankles or knees, being always symmetrical and bilateral. Associated with these objective disturbances, changes in the nervous system were often seen, such as excessive nervous irritability, insomnia, headaches, impairment of memory for recent events, "clouding" of consciousness, excessive fatigability, and peripheral neuritis, manifested in the early stages by spontaneous cramping of the muscles, especially the gastrocnemii, and later by pain in the arms and legs and the lumbar area, loss of achilles and patellar reflexes and eventually muscle weakness.

In 1943 M. S. Biskind published a report of certain preliminary observations on twenty-nine patients having menorrhagia, metrorrhagia, cystic mastitis and premenstrual tension with evidence of nutritional deficiency. In 1944, M. S. and G. R. Biskind together with the senior author enlarged the original series to 104 patients, of whom seventy were treated with various preparations of vitamin B complex.[17, 22]

Lest it be assumed that the phenomena related to nutritional deficiency described were characteristic only of clinic patients in certain localities, it should be pointed out that 75 per cent of the treated patients were private ones living in New York, Connecticut, Ohio, California and Oregon. These observations were made by the three of us, each working independently in a different city.

As the result of these further observations, a number of clinical implications of failure of the liver to inactivate estrogen in vitamin B complex deficiency while this organ continues to inactivate androgen, has presented several points of considerable interest.

One important factor which came to our attention early in the investigation was the fact that almost every patient who flowed usually for five to six days or more and had not considered this abnormal, subsequently flowed for not more than three or four days under B complex therapy. This made us believe that it was necessary to revise the concept of the normal range in the duration of menstrual flow.

As a general characteristic, patients with only mild or moderate signs or symptoms of vitamin B deficiency, who had become accustomed to increased nervous tension, insomnia, tenderness of the breasts, a feeling of "fullness" or "puffiness," lumbar backache, headache, increased fatigue, lower abdominal cramps and the like as premonitory indications of impending menstruation, reported after the first or second subsequent period while on B complex therapy, that the flow came on completely "without warning."

Painful and enlarging breasts, premenstrual irritability, a heavy prolonged menstrual flow, and occasional spotting between periods have long been considered normal aspects of menstrual cycles in many women. Reference to historical medical literature suggests that this is not correct. As far back as the 15th and 16th centuries, women in England and continental European countries had none of these symptoms associated with menstruation. The absence of these symptoms has been clearly established as being the result of diets unusually high in protein, whole grains and other vitamin B complex rich foods.[13, 24, 39]

Among other incidental changes observed in these patients, alterations in the skin and subcutaneous tissues were striking. A clearing and brightening of the complexion was usually one of the earliest changes observed on B complex therapy. This was noticeable in kodachrome photographs originally taken to illustrate the oral lesions and the changes under therapy. When first seen, in a number of patients, the skin was thin and hyperesthetic; large petechial hemorrhages occurred from slight contusions, and bleeding was almost invariable from the needle tract when hypodermic injections were made. The subcutaneous tissue was flabby and the fat pads over hips and abdomen were well developed. Following oral and parenteral therapy with vitamin B complex for from several weeks to several months, the skin and subcutaneous tissue became firmer; the skin was no longer hypersensitive, did not show "black and blue spots" from minor contusions and there was no longer bleeding following hypodermic injection. In addition, in several patients there was diminution in the deposition of fat about the hips, thighs and abdomen without the loss of any weight, and this was confirmed by actual measurements. These anatomic fat pads are specifically feminine attributes in the human being, and there is a great deal of evidence (derived both from spontaneous changes in body conformity in pathologic conditions and from the therapeutic use of estrogens and androgens) that the development of the characteristic female conformity is under the influence of estrogen. Thus, it is not surprising that, under favorable circumstances, reduction in the estrogen level (and alteration of the estrogen-androgen equilibrium) might affect the deposition of fat in these areas.

Liver poisons and cirrhosis of the liver have long been known to produce menorrhagia and metrorrhagia. The work of György, Goldblatt and others has shown that cirrhosis of the liver can result from nutritional deficiency. A study of autopsy data on female patients who died of cirrhosis of the liver invariably revealed lesions in the pelvic organs identical with those induced by estrogenic stimulation. Even aged female patients dying of hepatic cirrhosis have a hyperplastic endometrium in the proliferative phase. The cutaneous vascular spiders and palmar erythema formerly associated mainly with cirrhosis of the liver, have been shown by Bean to be related to nutritional deficiency, and to the presence of estrogen in increased amounts. Administration of estrogen to patients with these cutaneous phenomena produced new lesions and exacerbation of those already present; regression followed withdrawal of estrogen. These observations are correlated with those of Reynolds and Foster who showed that estrogen causes dilatation of the minute vessels in the ears of castrated rabbits. Bean has shown that the cutaneous vascular spiders are histologically similar to the spiral arteries of the endometrium observed by Bartelmez and by Jones and Brewer. Palmar erythema has been noted by Perera in nutritional deficiency and the regression of this lesion was described by him in two cases of cirrhosis under dietary therapy. There have been many observations on the relation of estrogen to the menstrual cycle and to liver function, and these indicate that with increase in amount of body estrogen, either cyclically during the intermenstruum or in the latter part of pregnancy, there may be a concomitant drop in liver function. Delayed postpartum involution of the uterus and its complication of subsequent menometrorrhagia, cystic mastitis and premenstrual tension occurs as a result of impairment of hepatic function with the associated increase in body estrogen.[28, 29, 30, 31, 32, 3, 4, 5, 6, 37, 2, 34, 36, 15]

Of the patients with nutritional deficiency who were in the menopause when first seen, most were relieved of their flushes by administration of estrogen but continued to have a multiplicty of complaints such as headaches, nervousness, light-headedness, insomnia, numbness and pain in the upper and lower extremities and the like. In several cases the estrogen was withdrawn and vitamin B complex was substituted. The avitaminotic lesions healed and the associated symptoms subsided. Even though the patients continued to have flushes they did not find them sufficiently disturbing to demand further estrogen therapy. It seems likely that many of the symptoms often associated with the menopause are really due to nutritional deficiency. Because the body estrogen is excessively high in B complex avitaminosis, the vasomotor instability considered characteristic of the menopause may be made more severe by a rapid decrease in the body estrogen from this excessively high level. It appears that in the absence of nutritional deficiency with its associated failure of inactivation of estrogen in the liver, the total decrease in the estrogen is not so great and the vasomotor symptoms correspondingly not as severe. The menopause may then be a physiologic phenomenon which does not require endocrine therapy.

Thus the basic etiologic factors in certain pathologic entities become clarified: the constant stimulus of a high estrogen level in the body produces an endometrium that remains in a proliferative state throughout the cycle, then slowly progresses into a permanent hyperplastic state with irregular bleeding. The same stimulus applied over a period of years to the myometrium can induce localized or irregular hypertrophies and hyperplasias of the muscle with ultimate isolation of a nodule and the formation of a leiomyoma. It is well known that these tumors are related to the estrogen level of the body; regression to a greater or lesser degree after the menopause is said to be common. In the same manner, it is possible to understand the development of chronic cystic mastitis; the continuous and additional cyclic stimulation of the breasts over a period of many years can ultimately lead to localized hyperplasia of glands and ducts; this is associated with irregular scarring or increase of fibrous tissue. That these hyperplastic lesions in the endometrium, the cervix and in the breast can ultimately become malignant is readily understandable, and the studies by Ayre and Bauld on the relation of thiamine deficiency, high estrogen, chronic irritation and cervical malignancy is a logical step which followed our earlier observations. In December 1951 Long and Simmons summarized their own investigations in this field by indicating that there was a close relationship between liver function and estrogen metabolism. Fifty-five patients presenting painful, tender breasts or dysmenorrhea or both were treated with a program directed at improving liver function and general health. Excellent or good results were obtained in all cases. Long and Simmons believe that all cases of estrogen disturbances without other apparent explanations should be investigated for evidence of impaired liver function. This should include not only the laboratory tests but careful review of the past history for evidence of hepatitis with or without jaundice. A history of jaundice, even in childhood, may be significant.[1, 35]

The results of our therapeutic program can now be evaluated on the basis of the observation of more than 4,000 patients. The functional condition of the patients who were studied varied from simple premenstrual tension with slight menorrhagia and mastalgia, to severe irregular metrorrhagia caused by cystic hyperplasia of the endometrium which is often associated with leiomyomata, or severe cystic mastitis of the breast. The response to intensive, persistent and complete nutritional therapy was invariably excellent in all the syndromes related to excess estrogen.

Therapeutically, experience has shown that best results were obtained when the B complex prescribed was derived from Mammalian liver containing all the known as well as the yet unidentified factors of this group. Depending on the original nutritional status and response of the patient, adequate nutritional therapy might require three tablets or capsules a day of a preparation which provides per dose, vitamin A 10,000 units, vitamin D 500 to 1,000 units, vitamin E 10 to 15 mg., thiamine 10 mg., riboflavin 5 mg., pyridoxine 1 mg., pantothenic acid 5 mg., niacinamide 50 mg., ascorbic acid 100 mg.

For a source of the indispensable natural source three types of preparations are especially valuable:* (1) desiccated whole liver, fortified with B vitamins or unfortified, usually at least 9 gm. (eighteen 0.5 gm. capsules or tablets) per day; (2) nutritional extracts of liver fortified with B vitamins, usually nine or twelve capsules or equivalent amount of liquid per day; (3) in cases in which there is more or less severe morphologic liver damage, preparations of the types described fortified with larger amounts of choline, inositol, vitamin B_{12} and methionine. All these preparations are given with meals. It is important to make certain that the diet contains adequate protein, since in protein depletion the B vitamins cannot adequately function.

Patients with impaired absorption require parenteral therapy with the cystalline B vitamins, in addition, with a frequency ranging from daily to three times a week. Often the latter can be discontinued after the patient is in nutritional equilibrium. For parenteral therapy a mixture may be administered containing from 10 to 50 mg. thiamine, 5 to 10 mg. riboflavin, 5 to 10 mg. pyridoxine, 10 to 50 mg. panthenol or calcium pantothenate and 50 to 100 mg. niacinamide and, when necessary, 50 or 100 mg. ascorbic acid.

Since preparations of liver extract for parenteral use are refined mainly for their antianemic potency and thus have lost much of their effectiveness for nutritional therapy, it is not feasible to use liver preparations parenterally for this purpose.

After the endocrine disturbance has been controlled and the nutritional lesions healed, it is nearly always possible to reduce the intake of B complex, although this must usually be continued indefinitely thereafter in from five to ten times the maintenance amounts for normal persons. It is suggested that once tissues are depleted of these factors, changes may occur which require a greater amount of the B complex group than that needed for normal maintenance. Bessey and Lowry found that the level of riboflavin in the rat cornea reflects the riboflavin intake, but that once the animal has been depleted of riboflavin, administration of riboflavin fails to increase the content of the cornea to the original level.[7]

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* The B complex-liver preparations most commonly used in our studies have been: (1) fortified whole desiccated liver: Rawl Whole Liver Vitamin B Complex (Rawl Chemical Co., New York); unfortified whole desiccated liver; Desiver (U. S. Vitamin Corp., New York); (2) fortified oral nutritional liver extracts: Lipo-Heplex (U. S. Vitamin); (3) lipotropic liver preparations: Methischol (U. S. Vitamin), Metheponex (Rawl).

This appears to apply to the human being also, for higher levels must be maintained in depleted than in nondepleted individuals. It cannot be too strongly emphasized that adequate amounts of a satisfactory natural source of the nutritional factors must be included in the therapeutic regime. Failures will occur if only synthetic vitamin preparations are used, or if the amount of naturally-occurring material is insignificant, as in several commercial preparations which contain only a few grains of brewers yeast. In the management of premenstrual tension and mastalgia, if therapy is begun at the time of menstruation, definite changes will usually be noted at the next menstrual period and almost complete alleviation of symptoms will frequently be evident at the second period. With grossly irregular metrorrhagia, especially in individuals in whom the condition has existed for years, several months may be required to bring about regular cycles in which there is evidence of a secretory phase indicating ovulation. So-called "lumpy breasts" require a similar period of intensive treatment with equally satisfactory results; in a few instances there has been a rapid retrogression of most of the irregular indurated masses, but one or two nodules have persisted. These were removed surgically and were found to be made up of scar tissue, nests of glands, dilated ducts, and small cysts.[18]

Since there are at present no adequate methods of determining precisely the nature, the degree or the reversibility of the deficiency in a given case, the type, amount and duration of therapy must be adjusted to the individual response. In perhaps the majority, and possibly in all the cases, large doses of the entire B complex must be administered indefinitely, especially as the average patient fails to correct the nutritional inadequacies of the usual American diet, or, having been persuaded for a time to correct it, will soon revert to one that is grossly deficient in the protective factors. And in several cases under treatment for nutritional deficiency for periods as long as fifteen years, it has not been possible, after the vitamin reserves of the body had presumably been restored by intensive oral and parenteral therapy, to prevent recurrence of the lesions by diet alone. It has been pointed out repeatedly by many workers, but it will bear emphasis at least once again, that the infinitesimal dosages often employed, such as one or two yeast tablets three times a day, have little effect in the treatment of B complex avitaminosis.

Another final point that requires discussion is the question of wide-spread low grade vitamin deficiency in the population as a whole. The tendency toward a highly purified diet, with a limitation of meat and whole grains and without vitamin supplements, may account for the presence of a much greater degree of nutritional deficiency in the population than is generally considered possible. The fact that in the average young female, the presence of various degrees of premenstrual tension, abdominal puffiness and premenstrual breast changes are considered normal concomitants of menstruation, is an indication that widespread deficiency is prevalent. All these signs and symptoms respond quickly to adequate nutritional supplements.

It is not our intention to leave the impression that the clinical therapy of vitamin B complex deficiency is a matter that may be accomplished in every case, simply by following a standard fixed procedure, even though in the great majority of cases this is so.

Nutritional deficiency is not always caused simply by dietary indiscretions. Any factor, chemical, physical or even psychogenic, that leads to cellular anoxia may cause avitaminosis. As Otto Warburg, in a recent fundamental publication, has pointed out so impressively, anoxia causes the cell to substitute a much less efficient fermentation type of respiration for the normal highly efficient oxidative respiration. Associated with anoxia, as Govier and Moyson have shown, B complex vitamins are dephosphorylated and both vitamins and phosphates are lost irretrievably in the urine. Thus, adequate nutritional therapy requires attention to the whole patient, to her environment and often to her psyche, lest factors which produce anoxia render partly or entirely ineffective the added nutritional supplements.[38, 27]

A complete discussion of this highly complex aspect of the problem would lead far afield and require far more time than we have at our disposal.

SUMMARY

It has been demonstrated repeatedly in experimental animals that the liver is the site of inactivation of estrogens and androgens and there is abundant evidence that these steroids are similarly metabolized in the human liver. The ability of the liver to metabolize estrogen is controlled by certain factors, among which is the intake of adequate vitamin B complex. Inactivation of androgen in the liver proceeds without significant impairment even during deficiency of vitamin B complex. Thus, it appears that the estrogen-androgen equilibrium in the body is maintained by a normally functioning liver, and that the equilibrium can be altered by nutritional deficiencies which impair the ability of the liver to destroy estrogen. In the female, the estrogen thus retained produces premenstrual tension, retention of body water, mastalgia, menometrorrhagia (functional uterine bleeding), chronic cystic mastitis and uterine myomas; following pregnancy, there is impaired involution of the uterus. In males, this syndrome leads to testicular atrophy, diminution of libido and potency, infertility and gynecomastia.

All these functional conditions respond readily to intensive and complete nutritional therapy; the organic changes likewise respond, although more slowly, and often less completely. Nutritional deficiency with the concomitant accumulation of excess estrogen and the consequent prolonged stimulation of tissues of the uterus and breast, may lead to the development of precancerous hyperplasias and, ultimately, in certain cases, to definite malignancy. For the last fifteen years, we have been able to demonstrate in several large series of patients that the clinical signs and symptoms related to excess estrogen may be controlled by a therapeutic program that employs an adequate dosage of all the known and unknown factors of the vitamin B complex together with a high protein, low carbohydrate diet. Maintenance of such a therapeutic regime provides complete symptomatic relief associated with restoration of the physiologic steroid balance in the body.

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Epidural Hematoma

Several Clinical Variations

SAMUEL P. W. BLACK, M.D., *Columbia*

IT HAS BEEN variously estimated that from 1 to 5 per cent of all cases of acute head injury, whatever the precipitating cause, develop an epidural hematoma, that is, bleeding between the skull and the underlying dura mater.[13, 18, 24] Although not a common lesion there is still a great discrepancy between the number of cases recognized clinically and those remaining undiagnosed until revealed at the post mortem table.[13, 19] This may be due in part to non-recognition of the fact that epidural bleeding can present itself in a number of ways depending upon such features as the source of the hemorrhage, age of the patient, presence of a skull fracture and location of the clot. Several of these features merit a review because, untreated, about 90 per cent of these meningeal hemorrhages will prove fatal.[6] On the other hand, promptly recognized and properly treated, it should be possible to have 90 per cent or better survive, if there are no attendant lethal conditions.[7] In order for that to come about, however, one should be diligent in observing the patient with an acute head injury, suspicious of the presence of extradural bleeding, and alert to its treatment.

THE "TYPICAL" COURSE OF EPIDURAL BLEEDING

In order to appreciate variations on it, the "typical," but far from usual, course of epidural bleeding might be outlined. After sustaining a blow on the temporal region which produces a skull fracture and tears open the middle meningeal artery or one of its branches, the patient, usually an adult, loses consciousness temporarily. After a while the sensorium clears and, save for a headache, he feels not too badly. This is the lucid interval on which so much weight in the diagnosis of epidural bleeding is so tenuously placed. Lucidity may last for an hour or more only to give way to unconsciousness as blood continues to escape from the artery which, anchored as it is to the dura, can neither contract nor retract but must remain open, pouring forth its contents into the epidural space. Severe pain may be experienced as the dura is stripped from the bone, in which process many small vessels that go between them are torn open, adding to the ever-enlarging hematoma (fig. 1). Blood may seep through the fracture line into the temporal muscle or subgaleal space producing a palpable bogginess. In the beginning there is what Trotter[20] terms a "stage of compensation" in which cerebrospinal fluid and some venous blood are displaced from the intracranial space and, if the clot overlies the temporal lobe, a rather silent area, no lateralizing signs are evident. But as the clot increases in size there occurs the "stage of venous obstruction" marked by increased excitability of the cerebral tissue so affected; still further pressure produces a "stage of capillary anemia" and definite neurologic loss on the opposite side of the body beginning in the face and extending to the upper and possibly lower extremities. The deep tendon reflexes on the weakened side are increased. The pupil on the side of the lesion may enlarge due to compression of the third cranial nerve against the clivus as the brain stem is pushed to the opposite side.[15] At that time, possibly two to six hours after the injury, it may be noted that the vital signs have changed: the pulse pressure has widened, the pulse and respirations are slower, possibly Cheyne-Stokes in type, all due to anoxia

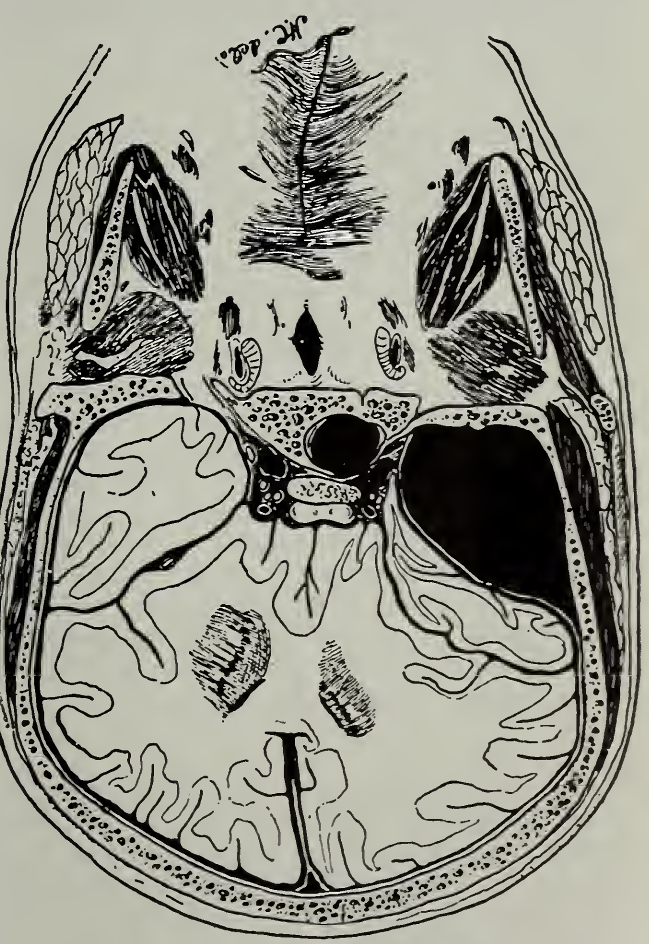

Fig. 1. Coronal section showing epidural hemorrhage in the middle fossa. Cushing.[6]

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Presented at the 98th Annual Session of the Missouri State Medical Association, April 8-11, 1956, St. Louis.

of the vasomotor center as described so clearly by Cushing.[5] Needless to say, surgical intervention at such time is imperative.

SOURCE OF THE BLEEDING

The cranial dura mater is composed of two layers closely connected together save where they separate to form sinuses for the passage of venous blood. The degree of adherence of the dura to the skull varies with age, being more firmly attached in the elderly, less so in infancy. In addition to the larger venous sinuses, there are smaller ones within the dura which accompany the middle meningeal artery and its branches. These are of particular importance to the present subject. Wood Jones[22, 23] conclusively demonstrated that the middle meningeal artery and its branches may lie on the outer aspect of such a small venous sinus, in some upon its inner aspect and, occasionally, it would seem to lie in the sinus (fig. 2).

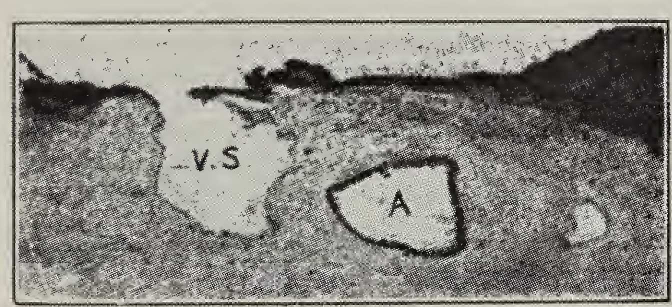

Fig. 2. Section of dura mater showing blood clot at right, torn venous sinus and intact artery. Wood Jones.[23]

In any case it forms an inconsiderable part of the whole vascular channel. Mr. Wood Jones states "it would be surprising to find that all cases of middle meningeal haemorrhage are due to wounding of the middle meningeal artery; indeed one would be inclined to suspect that the great majority are caused by bleeding from the easily torn sinuses." In support of this he points out that at times the compression symptoms due to epidural bleeding are remarkably slow, sometimes days, in their onset following head injury.

Blood from a number of sources, therefore, may find its way into the epidural space: from a large dural sinus such as the transverse sinus; a small dural sinus such as accompanies the middle meningeal artery; small vessels running between skull and dura mater; the middle meningeal artery, and from the diploe of the skull at a fracture line, likely a common occurrence.[18]

AGE

A consideration of age groups reveals that epidural bleeding may occur in infancy and childhood and presents several unique features. On the basis of their thirty cases, all children under the age of 12 years, Ingraham and Matson[11] warn that the initial period of unconsciousness occurs rather rarely and the symptoms of increasing intracranial pressure, once started, proceed with great rapidity to profound coma. Jacobson[12] vividly pointed out that in children the precipitating trauma may be slight. Bleeding into the extradural space, and probably subgaleally, which latter location it attains by transitting a fracture line, may be sufficient in young children to produce profound shock even in the presence of increasing intracranial pressure. One case demonstrated several of these features.

CASE REPORT

J. D. C. (M. U. H. No. 00-03-75). This 12 months old boy was kneeling on the first step of his home stairs when he fell forward and struck the left side of his head on the floor. He cried for a few minutes and then went back to his play but was irritable. After eating lunch he went to sleep. About an hour later he began vomiting and shortly thereafter was seen by his pediatrician who found him stuperous and in shock. There was a large, raised, tense and bluish subgaleal hematoma in the left temporal region. At that time the pupils were equal, fundi normal and all extremities moved well. On admission to the University Hospitals the blood pressure was 78/55 mm. of mercury and the child was pale, sweating and stuporous. During a period of observation he quieted down and his general condition improved. Skull films taken the next day revealed a fracture line in the left temporal region (fig. 3). During that day, at least twenty-four hours after the injury, slight weakness was noted in the right upper extremity. The following morning a left temporal opening was made. There was at least 30 cc. of blood beneath the galea and an extradural hematoma, 7 to 8 mm. thick had depressed the dura inward over an area some 9 cm. in diameter and extended into the left middle fossa. The middle meningeal artery and dura were not grossly damaged and the source of the bleeding was from small dural vessels and the bone edges. The dura was opened and no subdural blood or fluid was found. The post-

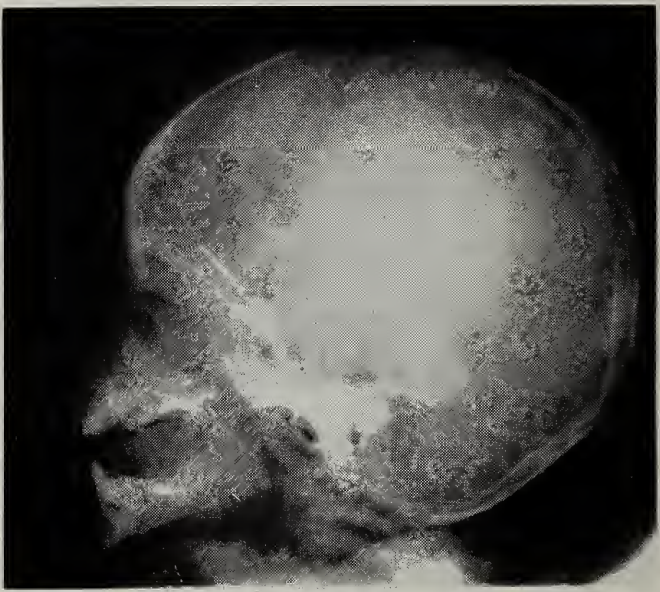

Fig. 3. The fracture line is visible just above the left squamosal suture.

operative course was marked by a Jacksonian seizure involving the right side of the face and upper extremity which was controlled by sodium luminal. He is now entirely normal.

It would appear reasonable to believe that the bleeding, which was of venous origin, was greatly accelerated by the increased venous pressure attendant to the vomiting. The rapidity of the blood loss in one so young caused the shock. Lumbar puncture was not performed. While one may obtain various opinions[7, 16] about its value, it is our practice not to employ it in acute head injuries for fear of causing a downward herniation of brain at the tentorium or foramen magnum. There is also the possibility that if the findings are normal a disasterously false sense of security might be imparted.

FRACTURE OF THE SKULL

A skull fracture is not essential to the production of an epidural hematoma, but its presence may alter the clinical course of such bleeding. In 1816 Sir Charles Bell[3] called attention to this fact and later Cushing[6] went on to say that "in some cases the extravasation may take place by 'contra-coup' on the side of the head opposite to that which receives the blow; and, indeed, there may be bilateral extravasation." On the other hand, if a fracture line is present, there is a possibility that the blood, especially if it is from the bone edges, may find its way outward and only a thin clot may form. Both Rowbotham[18] and Turnbull[21] think it is possible for blood to be absorbed from the epidural space. In depressed fractures, even though the fragment may have torn an arterial branch, it may be so wedged against the vessel as to prevent extravasation until manipulation of the head, operative or otherwise, unseats the fragment. Should the patient have a fracture through the base of the skull resulting in otorrhea or rhinorrhea, the consequent loss of spinal fluid may so decompress the brain that the stage of compensation is prolonged and the onset of symptoms possibly delayed.

SITE OF THE HEMATOMA

Extradural bleeding may occur not only in the temporal region, although this is the commonest location, but anywhere over the lateral convexity of the cerebrum and cerebellum. For example, Ingraham and Matson[11] call attention to hemorrhage from one of the large emissary veins in the region of the sigmoid sinus; and Cushing[6] reported a large and symmetrically placed frontal extravasation which also originated from torn emissary vessels, in this particular case from those bridging between the longitudinal sinus and calvarium and not associated with a fracture. McKenzie[15] depicts the location of a number of lesions and notes that a large occipital hematoma can, by stripping the dura from the bone, gain the posterior fossa and compress the cerebellum. He cautions that when encountering such a lesion the operator must not retire from the attack until the limits of the clot have been defined and all of it removed.

In 1908 Cushing[6] noted but did not enlarge upon the statement that "one of the cerebellar lobes may become compressed from such an extravasation just as may one of the hemispheres." Only in the last two decades, however, has epidural bleeding in the posterior fossa received specific attention.[1, 2, 4, 9, 10, 14, 15, 17, 21] Coleman and Thomson[4] appear to have been the first to define the clinical features of such a lesion. The following sequence of events was noted: head injury with skull fracture, nausea and vomiting proceeding to drowsiness and unconsciousness, nuchal rigidity and a tendency to lie on the side of the lesion, the so-called "forced position." Incoordination and nystagmus may also be present. Bacon[2] described paralysis of the vagus nerve on the side of the lesion. The reflexes disappear and as coma deepens the patient becomes hypotonic. Kessel[14] thought that "cerebellar fits," episodes in which the patient's head retracts and the extremities rigidly extend, could be "an outstanding feature of the clinical syndrome." He thought that the cerebellar extradural hematoma is always due to a laceration of the transverse sinus or one of the tributary veins caused either by a fracture or separation of the lambdoidal suture. It is generally agreed that, owing to the relatively low pressure within the transverse sinus, the development of a cerebellar hematoma may take place over a rather long time, more that sixty hours elapsing in Coleman's case before drowsiness appeared. As yet, however, there is no unanimity of opinion about the clinical syndrome of posterior fossa epidural hemorrhage.

TREATMENT

Anyone, child or adult, with a history of a head injury, whether or not there are local or radiologic signs of trauma, who develops increasing drowsiness, changing vital signs suggesting increasing intracranial pressure and lateralizing neurologic signs should have the benefit of exploratory burr holes. If the clinical picture has been obscured by damage to the brain, or blurred by alcoholism, or a clear evaluation of the patient is not available for one reason or another, it is better to operate because in the last analysis this is the surest way to diagnose and the only way to treat an epidural hematoma. The initial opening is made low in the temporal region (fig. 4). Should the extent of the clot not be delimited by one opening, additional openings must be made.[8] If the signs are entirely lateralizing, a unilateral opening is permissable if the clot is found on the suspected side; in the absence of an entirely clear situation bilateral holes are placed. It is well to

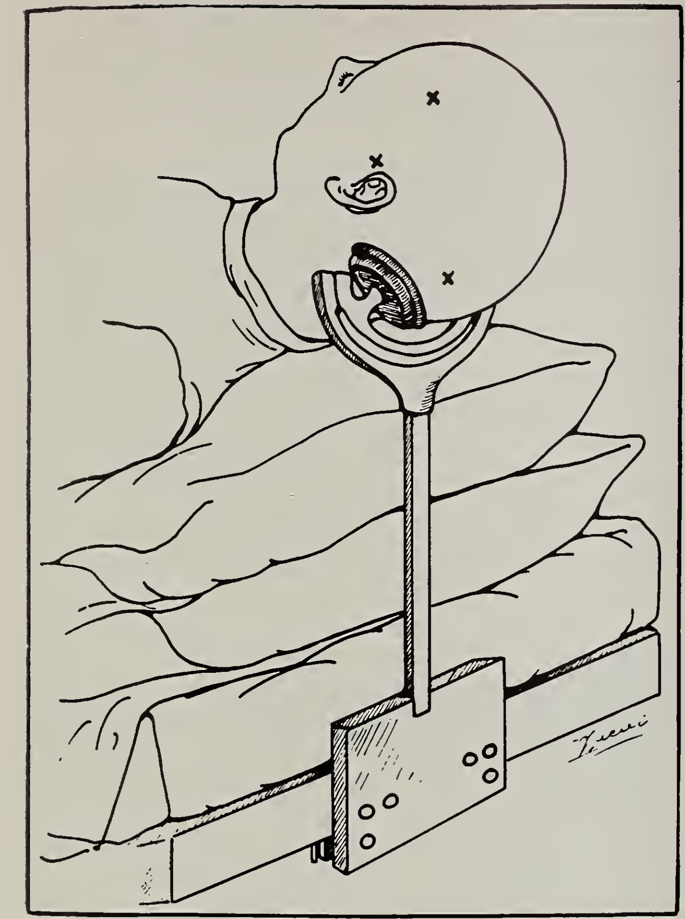

Fig. 4. The first opening is made anterior to the ear as indicated; further openings are placed as needed. Evans.[8]

make an opening in the dura in order to ascertain whether or not a collection of blood and spinal fluid has been trapped in the subdural space and also in order to observe the appearance of the brain. The procedure should not be undertaken lightly because combating a bleeding artery or venous sinus from which a tributary vein has been avulsed in addition to handling generalized oozing from the dura in a patient with brain injury is a formidable task. Endotracheal anesthesia is preferred but local anesthesia plus a judicious amount of sedation can be made to work quite satisfactorily. Preparations for blood transfusion should be made.

SUMMARY AND CONCLUSIONS

Epidural hemorrhage can present itself in various ways depending upon the source of the bleeding, age of the patient, presence or absence of a skull fracture and location of the clot. Of much importance to an understanding of the syndrome is the realization that bleeding can occur from venous sources. Infants and children are apt to display features unique to their age group. A skull fracture may allow bleeding into the epidural space to escape into the subgaleal space and thus spare the brain of some degree of compression. Epidural bleeding may occur in the posterior fossa. The reasonable suspicion that an extradural hematoma may develop following acute head injury should always be entertained.

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Emergency Care of Chest Injuries

JOHN R. McDANIEL, M.D., *St. Joseph*

THE EMERGENCY nature of chest wounds often precludes transportation from the highways and byways to centers staffed by specialists. The responsibility for the lives of many persons thus injured rests on the physician at the scene. Therefore, it is essential that principles and procedures used in the early management of these patients be familiar to general practitioners and general surgeons.

To establish a working diagnosis of chest injury, a careful examination must be made in good light, with the patient unclothed, care being taken to inspect the back as well as the front of the body. Observation may show contusions, perforations, splinting, paradoxical motions of the chest wall and deviation of the trachea. Palpation may disclose crepitus due to subcutaneous air or fractured ribs. Percussion and auscultation may reveal the presence of hydrothorax or pneumothorax. Free use of the x-ray and fluoroscope should be made in establishing a diagnosis and in following the course of chest wounds. There is sometimes a mistaken belief that the patient is too sick to undergo x-ray examination. It may be more properly stated that he is too ill to sustain the assaults of deranged physiology which might be corrected if an early and accurate diagnosis is made by x-ray.

The following generalities which apply to the treatment of trauma apply also to wounds of the thorax. The status of the airway must be determined. The mouth, throat, trachea and major bronchi must be cleared by aspiration with catheter or by bronchoscopy. A tracheostomy is useful in the severely injured for removing secretions and blood and for making respiration more efficient by eliminating some of the dead air space.

Shock may be due to hemorrhage or impaired cardiorespiratory function, or a combination of both. When due to hemorrhage, it is treated by restoring the circulating blood volume. In thoracic wounds in which there may be a diminution of the respiratory area, more caution must be exercised in giving transfusions. When shock is due to impaired cardiorespiratory function, the treatment may require the clearing of an obstructed airway, the relieving of tension pneumothorax, the aspirating of a hemothorax or cardiac tamponade. Oxygen is most efficiently given through an internasal catheter. To prevent depression of cough reflex, opiates are best administered only in small amounts.

Skillful nursing care is lifesaving. The patient with a thoracic injury is more comfortable, can breathe more easily, and is better able to clear the bronchial tree by coughing if he is in a semi-sitting position. He must be made to turn, breathe deeply and cough frequently. Bedside facilities for tracheal aspirations should be available, and nurses and house staff acquainted with their use.

The objectives of the emergency treatment of thoracic injuries are: (1) to restore the functional integrity of the chest wall, (2) to restore the functional capacity of the thoracic viscera, (3) to prevent infection.

FRACTURES

Rib fractures are the most common chest wall injuries. Simple fractures of one or two ribs usually require little more than analgesics. If support of the chest is required, the rib corset is probably the most satisfactory method of external splinting. Adhesive strapping may cause skin irritation, maceration and infection.

The complications increase in proportion to the number of ribs fractured even if no underlying visceral injury is present. This occurs as the result of splinting of the chest wall which decreases the ventilation of the lung. Secretions are more difficult to raise. In spite of antibiotic prophylaxis, pneumonia may develop, particularly in the older patient. Therefore, it is important to relieve the pain by intercostal nerve block, rather than by the use of large doses of opiates and tight bandaging. Intercostal blocks are done by injecting 5 cc. of 1 or 2 per cent procaine solution immediately below the lower margin of the rib at the posterior angle. Care must be taken to include at least two intercostal nerves above and below the injured ribs because of the overlapping sensory areas. Blocks may have to be repeated several times a day for several days. When the rib ends are markedly displaced and pain is severe and persistent, open fixation of the fractured ends by wiring may have to be done.

Multiple fractures of several ribs may cause "flail chest"—instability of the chest wall resulting in paradoxical motion. Small areas are stabilized by adhesive strapping over a gauze dressing. Larger areas require external support provided by towel clips which grasp the rib edges and which are connected to a weighted rope through a pulley on an overhead frame. This procedure may be done under local anesthesia.

Fractures of the sternum present essentially the same problem. If there is no abnormal mobility, a few days rest in bed with hyperextension of the

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Presented at the 98th Annual Session, Missouri State Medical Association, St. Louis, April 8-11, 1956.

dorsal spine usually relieves pain, and the patient may become ambulatory. If the anterior chest wall is "caved in" or paradoxical motion occurs with respiration, the edges of the sternum may be grasped with an uterine tenaculum attached to overhead traction. Usually, two weeks of traction restores stability. Open reduction and fixation is rarely needed.

PNEUMOTHORAX

Traumatic pneumothorax and hemothorax are commonly associated but, to facilitate discussion, they will be considered separately. Traumatic pneumothorax may result from penetrating or perforating wounds of the chest wall, the lungs, the trachea or the bronchi. Ordinarily, stab wounds and bullet wounds of the chest wall and of the lung seal off quickly, and little air enters through the chest wall or escapes from the injured lung. Larger wounds (for example, a shotgun blast at short range) may cause a defect in the chest wall through which air enters and leaves with each respiratory cycle, a so-called "sucking wound." If a valve-like wound occurs, air enters the pleural cavity on inhalation but cannot leave on exhalation, resulting in a tension pneumothorax.

Sucking chest wounds are readily apparent. They must be closed immediately. The defect is covered by vaseline gauze supported by dry gauze fixed by adhesive tape which contacts the skin all of the way around the dressing providing an airtight covering. Later the wound should be debrided and closed, using layer to layer approximation of the muscle, fascia and skin. This may be done under local anesthesia. To secure re-expansion of the lung, the air is then removed by needle aspiration or through a catheter inserted in an upper intercostal space and attached to a water seal drainage.

A tension pneumothorax is suggested by dyspnea, cyanosis and a rapid, thready pulse. The trachea is shifted toward the opposite side, and the involved side is hyperresonant to percussion. An external wound may or may not be present. To relieve a tension pneumothorax, an opening should be made in an upper anterior intercostal space with any sharp instrument immediately available. When the patient can be kept under close observation by well trained house staff and nursing personnel alerted to the possibility of recurrence, repeated aspirations can be done as needed. However, in most instances, it is safer to insert a No. 18F catheter into the second interspace in the midclavicular line attaching it to a water seal drainage. Under this management, the air is usually evacuated in a short time, and the catheter may be removed in approximately twenty-four hours. If pneumothorax or collapsed lung persists or increases under this treatment, it may signify an obstruction to or a tear in a bronchus. If by bronchoscopy the bronchus is not occluded, the presumed defect may need repair through a thoracotomy.

HEMOTHORAX

Hemothorax may be due to bleeding from the thoracic wall, from the lung, the heart or the great vessels of the mediastinum. It should be suspected when there is evidence of blood loss. On examination, the chest is flat to percussion and breath sounds are absent. A fluid level is visualized by fluoroscopy or an x-ray taken of the patient in the upright position.

Treatment consists of evacuation of the blood and reexpansion of the lung and, if necessary, the securing of the bleeding point by surgical intervention. Blood should be aspirated early and as nearly completely as possible. It should not be replaced by air since this defeats the avowed principle of securing an expanded lung. If the accumulation is of only a few hours' duration, a large collection may be removed at one time without discomfort to the patient. However, if the case has been neglected for several days, removal of large amounts of blood may be accompanied by cough and substernal pain at which time further aspiration should be deferred. X-rays of the chest should be taken daily and repeated aspirations done as needed.

Persistent bleeding from the chest wall is more likely to occur from the internal mammary arteries and the intercostal arteries posteriorly near the spinal column. (Wounds of the lung parenchyma are rarely a source of continued hemorrhage.) If blood reaccumulates in the chest rapidly after aspiration and there are other signs of hemorrhage, such as failing blood pressure and increasing pulse rate, the bleeding point will have to be ligated.

If intrapleural blood is not removed early it will coagulate and "enzyme debridement"[1] may be necessary to liquify the clot. If the clotted blood organizes, nothing less than a surgical decortication of the lung and diaphragm will suffice to restore optimum respiratory function.

Lacerations, contusions and hematomas of the parenchyma of the lung, rarely, if ever, require surgical intervention. The only indication for a pneumonectomy or lobectomy in the early management of chest injuries is an irreparably torn large bronchus or uncontrollable hemorrhage from a hilar blood vessel.

Early removal of large foreign bodies from the pleural cavity is advisable, especially if considerable contamination is suspected. The smaller foreign bodies in the lung usually may be disregarded.

HEART INJURIES

Severe blows to the anterior chest may cause contusion of the myocardium, giving a picture similar to that of a coronary occlusion. An electrocardiograph should be taken in cases of severe anterior chest wall injuries, and, if damage to the heart is indicated, the patient should be treated as having had a myocardial infarction.

Lacerations of the myocardium are usually caused by stab wounds which allow blood to escape into the pericardial cavity giving rise to a cardiac tamponade. Such an injury should be suspected when the tract of the wound appears to have passed near the heart. On examination, the heart sounds are distant, the neck veins are distended and the pulse pressure is low. By x-ray there is a "water bottle" configuration of the heart, and on fluoroscopy the cardiac movements are diminished or absent.

The current feeling[2, 3, 4] is that cardiac tamponade should be treated by aspiration of the blood through a needle inserted anteriorly near the sternum in the fourth interspace on the left or inferiorly along the left side of the zyphoid process of the sternum. Preferably, this procedure should be carried out in the operating room and, if bleeding continues, suture of the heart muscle is indicated.

WOUNDS OF THE ESOPHAGUS

Wounds of the esophagus should be suspected when the tract of the missile passes through the mediastinum. The patient may experience dysphagia; crepitus may be present in the neck; mediastinal widening, and mediastinal emphysema may be apparent on x-ray. The diagnosis may be confirmed by fluoroscopic observation of a small swallow of thin barium. A positive or strongly suspected diagnosis of esophageal perforation demands thoracotomy and a careful repair of the wound in layers with fine silk sutures. The mediastinal pleura should be left open and the pleural cavity drained with a large intercostal catheter. The greater part of the esophagus is more accessible from the right side of the chest.

THORACO-ABDOMINAL INJURIES

The diaphragm may lie high in the chest cavity at the instant of injury depending on the position of the patient and the particular phase of the respiratory cycle. Wounds below the fourth intercostal space should be suspected of involving the diaphragm and the abdominal viscera. In chest injuries, abdominal signs are notoriously difficult to evaluate. Thoracic pain may be referred to the abdominal wall, and a tender, rigid, silent abdomen does not necessarily mean that an intra-abdominal organ has been injured. However, if there is the slightest suspicion of intra-abdominal wounds, an immediate exploration should be done. When there is a coexistent thoracic injury, the exploration is more easily accomplished through the chest and diaphragm. All holes in the diaphragm should be closed carefully and this is imperative when the wound involves the liver. Hepatic injuries should be drained subdiaphragmatically by a drain brought out beneath the costal margin—never through the chest.

The prevention of infection requires: careful cleansing, debridement and closure of wounds; the evacuation of air, blood and serum from the pleural cavity to secure early expansion of the lung; and the giving of adequate doses of broad spectrum antibiotics.

SUMMARY

Every physician responsible for care of the injured should be prepared to treat chest wounds.

The procedures involved are the restoration of the chest wall, the reexpansion of the lung, the repair of the thoracic viscera and the prevention of infection.

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Acute Traumatic Abdominal Injury

VIRGIL E. JEANS, M.D., *Joplin*

An abdominal injury involving the rupture of a viscus or hemorrhage from a major blood vessel is a most challenging surgical problem. It is the most lethal of all injuries not causing instant death, since without treatment it carries a mortality approaching 100 per cent. In this age of mechanized labor and fast transportation, it is obvious that acute traumatic injuries will be commonplace, and it is essential that rapid accurate diagnosis be established and proper therapy instituted immediately if the patient is to survive. If this is done, many lives can be salvaged.

To emphasize the important essentials from a practical standpoint, it is necessary to know something about the organs that can be involved, the symptoms that injury to these organs can produce, the physical findings which can be expected from these injuries and the treatment which will afford relief.

All abdominal wounds may be classified as either penetrating or nonpenetrating. In war, penetrating wounds are seen more frequently than in civilian practice. Nevertheless, ice picks, pocket knives, shot guns and .38 caliber pistols cause just as lethal a wound in a civilian as a German "88" did in soldiers. Anything which can pierce the abdominal wall can produce a penetrating wound—fractured ribs, chips off a cold chisel, fragments from an emery wheel, a piece of steel from a drill press or a sliver of wood from a lathe or saw.

In civilian practice the bulk of injuries seen in the emergency room will be of the nonpenetrating variety. A blow to the abdomen by a flying piece of wood or metal, the sudden trauma of being thrown against the seat of a car or its steering wheel during an accident, being caught between a truck and a loading dock, or being struck by any blunt instrument can cause abdominal injury.

The tissue and organs involved in either type of wound may be classified as follows:

1. Abdominal wall—including skin, subcutaneous tissue and muscle.
2. Abdominal cavity—
   a. Solid viscus: (1) liver, (2) spleen.
   b. Hollow viscus: (1) stomach, (2) small bowel, (3) colon, (4) gallbladder, (5) urinary bladder.
   c. Blood vessels.
   d. Bile ducts.
3. Retroperitoneal—
   a. Kidney.
   b. Pancreas.
   c. Duodenum.
   d. Large vessels.
   e. Diaphragm—thoraco-abdominal wounds.

It is an aphorism that in medicine one must treat the patient as a whole—not by separate systems or parts. This certainly applies to the proper evaluation of a patient who has been injured. It is seldom that one has pure abdominal injury. Often what appears to be a penetrating injury confined to the abdomen actually involves the chest or extremity because of the position of the patient at the time of inception, and converse of this is also true. A man lying down or crawling may be wounded in the chest or extremity. When he is lying on the examining table, the wound of entrance and exit may suggest that the abdomen was not violated, but when his position at time of wounding is appreciated it might be perfectly evident that the abdomen was tranversed.

Following a major civilian accident, such as an automobile accident, the extent of injury must be appraised and priority of treatment be established. Associated intracranial or intrathoracic injuries, as well as extremity fractures, may contribute to the patient's condition and merit careful evaluation. Shock from whatever cause must be recognized and treated while the examination is being carried out, and preferably before definitive treatment is contemplated. Injuries to adjacent organs or cavities such as heart, lungs and diaphragm may complicate and make what appeared to be all chest or all abdomen a thoraco-abdominal wound. Fractures of the ribs, spine or pelvis may be complicated by associated injury to kidneys, spleen or urinary bladder, making the abdominal injury the more important one and the one taking priority in treatment. Careful abdominal examination and evaluation comes into the differential diagnosis in every serious injury. Spinal cord injury or fractures of the thoraco-lumbar vertebrae, for example, may simulate intra-abdominal injury, emphasizing that "all is not gold that glitters."

All wounds, irrespective of whether they are penetrating or nonpenetrating, produce varying degrees of hemorrhage, peritonitis and shock or a combination of all three. The organ or part involved does indicate to a degree what one may expect. Injury to the abdominal wall may cause contusion, laceration or hematoma, and may involve skin, subcutaneous tissue or muscle. Injury to an intra-abdominal organ may be to a solid or to a hollow viscus. If it is to a solid viscus it will be either liver or spleen. In addition to hemorrhage from the liver, laceration may lead to escape of bile with resulting chemical peritonitis. Fractures or lacerations of the spleen are the most frequent

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Presented in a panel on Acute Surgical Emergencies at the 98th Annual Session of the Missouri State Medical Association, St. Louis, April 8-11, 1956 cause of severe hemorrhage and shock following any injury to the abdomen, especially those directed to the left upper quadrant. Injury to a hollow viscus presents another problem because of its contents. There may be hemorrhage and shock from severance of mesenteric vessels, and the escape of gastrointestinal contents may cause chemical or bacterial peritonitis, depending upon the part involved.

Injury to the retroperitoneal viscerae may produce a wide variety of conditions. Usually if there is a serious injury to the great vessels, aorta, vena cava or portal vein, the patient is "DOA." However, the injury may result in retroperitoneal hematomas from "near misses" or contusions. Injury to the kidney usually manifests itself by hemorrhage and extravasation. Two of the most serious and easily missed areas of involvement are the duodenum and pancreas. The duodenum is mostly retroperitoneal and injury to its posterior surface may cause unrecognized peritonitis and death if it is not suspected. Its location predisposes it to compression over the vertebral column. Injury to the pancreas may result in laceration and rupture of this organ with escape of irritating pancreatic juice resulting in hemorrhage, shock and chemical peritonitis. The urinary bladder and ureter may be injured with resulting extravasation of urine.

Precise diagnosis should include a brief but careful history. The position of a patient at the time he received a penetrating wound may give an important clue to the extent of the injury and to the parts involved. The type of injury and the progressive symptoms may be of value. Since the symptoms are from hemorrhage, shock and peritonitis, his complaints will be more or less confined to these conditions.

Shock is manifest by pallor, cold, clammy skin, thirst, dyspnea, failing peripheral blood pressure and a rapid thready pulse. If the blood pressure does not respond to rapid infusion of one to two liters of blood it is evident the patient has serious and continuing hemorrhage which calls for immediate intervention and control.

Inspection of the patient may give considerable information. There may be evidence of an external contusion or underlying swelling which may indicate the parts involved. The wound of entrance and wound of exit may indicate the portion of the abdomen which was traversed and, also, may show evidence of bleeding or oozing of bile or intestinal contents. Physical examination usually reveals some abdominal distention, depending upon the part involved and the time elapsed since wounding. Respiratory movements are usually splinted. There may be fullnes in the flank or shifting dullness indicating free intraperitoneal fluid. There is usually an associated ileus, however, and tympany may be in evidence. The tenderness varies. It is exquisite from blood and from upper abdominal contents, both causing immediate chemical peritonitis. Peritoneal soiling with colon contents does not cause this immediate violent reaction, and early findings may be minimal. Later, with the onset of bacterial peritonitis, symptoms and signs are severe. Rigidity follows the same pattern as tenderness. It is board-like from hemorrhage and from the presence of stomach and upper small bowel contents. Rebound tenderness is usually marked. Bowel sounds are sluggish to absent. Early in hemorrhage and peritonitis, one finds the "silent abdomen."

Certain laboratory procedures may be of value. Flat and upright x-ray films may reveal absence of psoas shadow, air under the diaphragm, foreign bodies or injuries to adjacent organs or cavities; viz., hemothorax, ruptured diaphragm or fractures of ribs, pelvis or spine. Urinalysis may show blood indicating injury to the bladder, ureter or kidney. Chemical analysis of blood may show high amylase, indicating injury to the pancreas. Routine red and white count and hemoglobin determination and hematocrit may indicate hemorrhage and may indicate the degree of shock and the quantity of blood replacement necessary, although changes in these studies usually are not manifest early.

When a diagnosis has been made, treatment must be integrated. Time will not permit detailed discussion of the treatment of shock, treatment of associated injuries and choice of anesthesia, but needless to say, these are of utmost importance and require careful consideration. All penetrating wounds of the abdomen must be explored and most nonpenetrating ones should be explored, unless one is certain that no intra-abdominal injury exists.

At laparotomy the first consideration is the location of the incision. If a precise diagnosis is made, this choice is easy. An axiom in good surgery is to put the incision over the pathology. If this is not possible, the initial incision should be so placed that it can be extended. If the problem is hemorrhage, and one is certain that it is from a ruptured spleen, a transverse incision in the left upper abdomen is excellent. If one is not sure, a left paramedian incision in the mid-abdomen is better for exploration. This can be extended for more complete exposure. If hemorrhage is severe, it must be checked before shock can be controlled, irrespective of blood replacement. The spleen is the usual source of severe hemorrhage and should be inspected first. The liver and mesentery are also sources to be suspected. Blood from a ruptured spleen may be used as auto-transfusion, but blood from penetrating wounds should never be used because of the danger of contamination. The type of fluid in the abdomen often suggests the area of injury. Bile suggests liver or biliary tract, undigested food suggests stomach, frank feces suggests colon and ammonical fluid suggests urine. The actual exploration of the abdomen must be systematic and should "cover the water front." Unless the injury is obviously elsewhere, one can start in the left upper quadrant. This should include spleen, diaphragm, cardio-esophageal junction and stomach. Then to swing over to the right upper quadrant, one can inspect the liver, gallbladder and bile ducts, duodenum, pancreas and posterior surface of the stomach. In order to see these last three structures, the lesser omentum or gastrocolic ligament must be divided. This is absolutely essential in perforating wounds in this region. I remember distinctly a case of a prisoner of war in whom failure to do this resulted in death. A perforation in the posterior wall of the stomach was overlooked and at postmortem the lesser peritoneal sac was filled with gastric juice, resulting in a fatal peritonitis. The small bowel must be explored from the ligament of Treitz to the ileocecal valve. One can begin at either end. Careful inspection of the mesentery and its border, as well as the bowel, must be made. The colon must be visualized and palpated in its entirety. The urinary bladder must be visualized and inspected, and pelvic peritoneum must be carefully examined to determine if a penetrating wound has passed from the abdomen and involves the rectum. The retroperitoneal area must be palpated and examined to determine injury in this region.

As to definitive treatment, it is imperative that splenectomy be done for fracture or laceration of the spleen. Fractures with subcapsular hemorrhage may stop bleeding, and one may be tempted "to let well enough alone." This is not safe, however, because of the high percentage of secondary hemorrhage ten days to two weeks following the injury. The clot or tear in the spleen can be felt by palpation. If the hand is passed over the spleen, the splenorenal ligament can be divided by blunt dissection with the fingers. The spleen can then be rotated medially and the pedicle becomes visible. The vessels then can be clamped or ligated individually.

Laceration of the liver requires suture to control hemorrhage and to prevent the escape of bile. Deep mattress sutures placed at right angles to the laceration are usually effective. Local hemostatics such as Gelfoam or Oxycel may help. Packing with gauze should be avoided if possible, because of danger of secondary hemorrhage when removed. In injury to the common bile duct it is sutured or drained with a "T" tube. All liver wounds should be drained to mitigate the hazard of bile peritonitis.

All gastrointestinal wounds must be closed. Small wounds may be purse-stringed, and longitudinal wounds may be closed transversely without compromising the lumen. If the wound is at the mesenteric border with damage to a segment of the blood supply, or if there is a large tangential wound at the anti-mesenteric border, resection with end to end anastomosis is the treatment of choice.

Colon wounds are handled somewhat differently. Because of bacterial contamination and the limited blood supply of the colon, any severe injury to the colon should be exteriorized. War time directives made it imperative to exteriorize all colon wounds. In civilian practive, I believe it is advisable to suture or resect small wounds and drop them back with or without proximal decompression.

Injury to the kidney results in hemorrhage or urinary extravasation or both. If there is no other abdominal wound it can usually be watched and satisfactory recovery can be expected. There is little to be accomplished by suturing a ruptured kidney. If the damage to the kidney is extensive, or bleeding persists with continued shock, the treatment of choice is nephrectomy. Rupture or laceration of the urinary bladder requires suture and catheter drainage.

Perforation or laceration of the rectum demands proximal colostomy.

SUMMARY

The nature of acute trauma to the abdomen is discussed from the standpoint of etiology, pathology, diagnosis and treatment. Investigation of associated injuries and priority treatment is emphasized. Early diagnosis and appropriate therapy is mandatory in these serious injuries.

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Arthritis

New Cortisone Derivatives in Treatment

JACK ZUCKNER, M.D., *St. Louis*

THE EARLY enthusiasm over cortisone acetate (cortisone) and corticotropin (ACTH) for ameliorating the manifestations of various rheumatic conditions was somewhat subdued by the disadvantages which became apparent after further experience. These included the many well known adverse reactions, the high relapse rates when the drugs were discontinued or lowered in dosage and the decreasing level of improvement with long term maintenance therapy. Nevertheless, the potentialities of these drugs were, obviously, promising; and chemists and clinicians began the search for more effective steroids with fewer side reactions.

Hydrocortisone acetate (hydrocortisone) became available in 1951; it was more potent and was as effective in doses about two thirds that of cortisone.[1] However, the same disadvantages occurred with approximately the same intensity when hydrocortisone was administered systemically. When administered locally by direct injection into an involved joint, hydrocortisone was greatly superior to cortisone in antirheumatic effect and was accompanied by a lesser degree of toxicity.[2, 3] The intra-articular administration of hydrocortisone has, subsequently, become one of the most useful adjuncts for therapy in the field of rheumatology.

By 1953, further investigation produced hydrocortisone t-butylacetate, a higher ester of hydrocortisone. Hollander and his group[4] who have had the widest experience with hydrocortisone t-butylacetate found it to be superior to hydrocortisone when injected intra-articularly. Personal experience with this new derivative of hydrocortisone has not produced similar results, both preparations reacting equally well.

Other variations in the formula of the original steroids resulted in the synthesis of 9-alpha fluorohydrocortisone in 1954.[5] A fluorine atom was introduced into the hydrocortisone molecule at the 9-alpha position and this succeeded in producing a marked increase in anti-inflammatory activity, more than ten times that of the original hormone. However, sodium retaining properties were likewise increased, thus negating the value of this drug for practical therapy in rheumatic diseases. In other conditions, such as Addison's disease, this increased mineralocorticoid effect might be desirous.[6]

The hope for a better preparation seems to have been realized to some degree with the synthesis of prednisone and prednisolone. By the introduction of a double bond between carbons 1 and 2 of cortisone and hydrocortisone respectively, the analogues, prednisone and prednisolone, were produced. The original clinical findings on these drugs were recorded by Bunim, Pechet and Bollet[7] and have been substantiated by many other investigators.[8]

Prednisone and prednisolone are equally potent when administered orally and exert the same suppressive and ameliorating effect as cortisone in a dose approximately one third to one fifth as great. The average initial total daily dose for rheumatoid arthritis is 20 to 40 mg.; this is gradually lowered to a maintenance level of 10 to 20 mg. daily. This increased antirheumatic effect manifests itself, not only by permitting the use of smaller equivalent doses of these preparations for satisfactory relief but, also, by being superior to cortisone in some patients responding poorly to the latter.

Of equal or greater significance are the detailed metabolic and clinical studies which reveal that prednisone and prednisolone can be given in doses adequate to suppress symptoms without causing sodium retention or increased potassium excretion. In fact, some individuals may actually diurese when their medication is changed from cortisone to prednisone. This relative lack of effect on electrolyte metabolism in the dosages used for rheumatic diseases has proved to be a major advantage of these preparations. It is now possible to treat individuals without restricting their salt intake or supplementing their diet with potassium. In addition, cardiac patients with arthritis, formerly considered poor risks for cortisone therapy, may be treated with less danger of causing increased congestive failure.

Other side effects, such as depression of adrenal cortical function, diabetogenic effect, Cushing-like reaction, and reactivation of peptic ulcer, occur with approximately the same frequency and severity as with cortisone. The effects of prednisone and prednisolone on the blood elements, sedimentation rate, serum proteins and C-reactive protein are similar to those seen with cortisone. A negative nitrogen balance develops with high doses. Reduction of circulating eosinophils and 17 ketosteroids also occurs. Withdrawal of these newer steroids may likewise be followed by relapse associated with a severe constitutional reaction.

In some of the relatively few patients who have

Presented in a panel on "What's New in Medicine" at the 98th Annual Session, Missouri State Medical Association, St. Louis, April 8-11, 1956.

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been followed while taking these hormones for prolonged periods, it has become necessary to raise the maintenance dose or discontinue therapy because of a lessened beneficial effect. Further long term studies are necessary to determine if this decreased effect with prolonged therapy will occur as frequently as it did with cortisone.

It should be apparent that treatment with any of these drugs does not effect a cure and that merely administering steroids is not adequate therapy for rheumatoid arthritis and related conditions. The basic problems in management of these diseases are not solved. Proper selection of patients, use of minimal effective doses and careful observation are still necessary. Physiotherapy, the proper psychologic approach, gold salts when indicated and other medications are not to be neglected. That the steroids facilitate treatment is obvious, but accepting them for a panacea could be damaging.

A word of caution is necessary in reference to the much publicized pharmaceutical preparations containing small doses of one of these steroids in combination with salicylate or ascorbic acid or both in the same tablet. The lay literature has been calling these tablets "super aspirins" or "glorified aspirins." Unfortunately, many physicians may also adopt this same attitude after enough publicity, and may forget that they are dealing with potentially dangerous drugs. It has not been proved to any satisfactory degree that such preparations can be handled with the same assurance of relative nontoxicity as aspirin. Suppression of the adrenal glands, suppression of signs of an acute abdomen or an acute infectious process or reactivation of a peptic ulcer with hemorrhage must still be considered as possible hazards until further studies indicate otherwise.

The ultimate place of prednisone and prednisolone in the therapeutic regimen will not be determined until further long term studies are evaluated. For the present, all information indicates that prednisone and prednisolone offer significant advantages and because of this should probably supplant cortisone in actual practice.

Most of the drugs dealt with in this report have given a satisfactory response to patients with rheumatoid arthritis, gout, bursitis, disseminated lupus erythematosus, scleroderma, fibrositis and rheumatoid spondylitis. It is questionable whether the systemic use of these preparations will be of therapeutic value for individuals with degenerative joint disease (osteoarthritis). In this respect, they will probably be no more beneficial than cortisone. It is hoped that further advances in therapy will aid this latter group of patients as well as those previously mentioned.

SUMMARY

Prednisone and prednisolone, two of the more important recent discoveries, are equally superior in antirheumatic response to their analogues, cortisone and hydrocortisone, respectively. In addition, the markedly reduced mineralocorticoid action of these newer corticoids assures them a more prominent place in the management of arthritic patients since it is possible to administer these agents in dosages sufficient to suppress symptoms without causing sodium retention or excessive potassium excretion.

It must not be assumed, however, that the basic problems in management of these diseases are solved. These hormones are not a cure, and undesirable physiologic effects occur with prednisone and prednisolone as with the older preparations.

It is hoped that further alterations in structural composition of steroids will result in antirheumatic agents with additional beneficial effects.

4500 Olive St.

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Wisdom, compassion and courage—these are the three universally recognized moral qualities of man. It matters not in what way men come to the exercise of these moral qualities, the result is one and the same. When a man understands the nature and use of these three moral qualities, he will then understand how to put in order his personal conduct and character; he will understand how to govern men. When a man understands how to govern men, he will then understand how to govern nations and empires.—*Confucius.*

Knowledge is the treasure but judgment the treasure of a wise man. He who has more knowledge than judgment is made for another man's use more than his own.—*William Penn.*

Experience is something I always think I have until I get more of it.—*Burton Hillis.*

Postgraduate Review

Wound Dehiscence

Following Abdominal Surgery

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WOUND DEHISCENCE, with or without evisceration, continues to be a serious and frustrating postoperative complication. The average incidence of evisceration is 1.5 per cent with a mortality of 35 per cent.[1] The first report of wound dehiscence in this country was made by Brettauer[2] in 1899. Since that time many articles dealing with this subject have been written. Most authors agree that there is a multiplicity of reasons for wound dehiscence and these etiologic factors are repeatedly itemized in the literature.[3, 4, 5, 6, 7, 8, 9] Such a list would include:

1. Type of incision.
2. Technic of wound closure.
3. Catgut allergy.
4. Hypoproteinemia.
5. Ascorbic acid deficiency.
6. Anemia.
7. Wound infection.
8. Wound hematoma.
9. Increased intra-abdominal pressure.
10. Magnitude of operation.
11. Conditions which "predispose" to wound dehiscence such as obesity, diabetes mellitus, phlebitis, chronic debilitating diseases and malignancy.

There are, however, individuals with more succinct and obdurate opinions concerning the reason or reasons for wound dehiscence. Singleton[9] condemned the unanatomic vertical incision and stated that in a period of ten years the vertical incision had resulted in 5 per cent disruptions and 6 per cent abdominal hernias, as compared to no resultant defect when using the transverse incision. Hartzell et al.[10] reported that in 1,458 cases of wound disruption "no evisceration occurred through a transverse incision." Gurd,[11] also, supports this anatomic principle in regard to wound disruption. Burch and Bradley[12] not only advocate the transverse incision but, also, state that closure of the peritoneum with a continuous catgut suture is followed by a high rate of disruption. This latter observation will be discussed further. Meleney and Howes[1] observed that a great majority of eviscerations occurred through the upper abdominal vertical incision. Mersheimer and Winfield,[8] in a recent review, further support the contention that the incidence of evisceration is much lower in the transversely placed incision, attributable to the better preservation of blood and nerve supply and avoiding the lateral pull of the transversus and oblique muscles. Colp,[4] however, in analyzing 2,750 laparotomy cases, stated that anesthesia, type of incision, magnitude of operation, method and technic of wound closure, drainage or wound infection, bear little or no relationship to the frequency of wound disruption. Ravdin and coworkers[5, 13, 14, 15] showed that hypoproteinemic dogs undergoing laparotomy had a high incidence of wound disruption. They initially thought that the failure of healing was due to the edematous state of the tissues per se (a common finding in the tissues of the dehisced wound). However, it soon became apparent that the defect was due to delayed or absent fibroplasia and could be corrected or prevented by the use of lyophile plasma.

Considerable interest, therefore, has been directed toward the process of wound healing and factors which interfere with the normal process, including hypoproteinemia and ascorbic acid deficiency. Localio et al.[16, 17] have demonstrated that in protein-depleted rats wound healing is delayed and that by supplying the sulfhydryl group in the form of methionine the healing process returned to normal. In 1926, Wolback and Howes[18] concluded that the histologic basis for the failure of wounds to heal in the presence of ascorbic acid deficiency lies in the inability of the supporting tissues to produce and maintain intracellular cement substance. Lanman and Ingalls[19] found this to be true and demonstrated that the abdominal wounds of scorbutic guinea pigs ruptured at a pressure averaging approximately one third that required to rupture the wounds of normal animals. These authors, also, emphasized the importance of asymptomatic or subclinical scurvy which decreased the physiologic activity of the connective tissue cells. Cottinger and Mills[20] demonstrated that vitamin deficiency, including ascorbic acid and some of the vitamin B complex, severe enough to retard growth, also causes a reduction in phagocytic activity. This abnormality would then become of importance in the initial phase of wound healing when phagocytosis of tissue debris and foreign matter takes place, and also in that the state predisposes to wound infection. Zintell[21] stated that the rate of healing of abdominal wounds is restored to normal velocity when the serum proteins in hypoproteinemic animals are restored to normal levels. Vitamin C was of significance in that it was necessary for the maturation of precollagen into

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collagen of the connective tissue fibers. Harvey[22] through numerous experiments and in the study of wound healing, maintains that the holding power of a wound, or its tensile strength, is almost entirely a function of the number of fibroblasts and their maturation.

In recent years rather elaborate chemical and histochemical study and assay of healing tissues have altered the concept of the healing process. These methods, particularly, have been directed at the investigation of collagen formation and the presence of acid mucopolysaccharides in normal and abnormal states of tissue repair. Dunphy and Udupa[23] on the basis of such experimentation have proposed a new concept of wound healing. In contrast to Harvey's interpretation they believe that normal tensile strength is a function of collagen formation and not of fibroblastic multiplication. They propose two phases of wound healing: (1) the productive or substrate phase, during which mucopolysaccharides and soluble protein precursors of collagen are formed; and (2) the collagen phase, during which normal collagen fibers are formed. In this concept there is no lag phase as conventionally pictured. In preliminary analysis of scorbutic guinea pigs they have found an increase in mucopolysaccharides above that of normal animals. These mucopolysaccharides, however, are abnormal in that they do not stain metachromatically with toluidine blue. Fibroblasts were found in abundance in these tissues. This finding is in contrast to similar studies by Penny and Balfour[24] who found that in scorbutic guinea pigs the mucopolysaccharides were decreased far below the normal. The former investigators, using protein-depleted animals, also found that the mucopolysaccharides were reduced below the normal and, in addition, there was a delay in and decreased formation of collagen. At the present, these methods are far from being specific but promise to further enlighten knowledge of the healing process.

DEFINITIONS AND ANALYSIS OF 91 CASES OF WOUND DEHISCENCE

A consistent and well defined terminology is essential in analyzing possible etiologic factors in this grave postoperative complication. In many instances it is not clear whether an author is referring to a "partial wound disruption" or to complete evisceration. Butler[6] states that evisceration occurs in about 65 per cent of wound disruptions. Why do these wounds eviscerate? Why do some wounds dehisce to varying degrees but do not eviscerate? The mortality rate of 35 per cent is associated with the cases of complete evisceration with protrusion of the viscera. Therefore, the distinction is not only a matter of degree and etiology but, also, of prognosis and treatment.

It has been elected to use the term wound dehiscence and designate the degree of dehiscence purely on an anatomic basis. This is done as follows:

First degree dehiscence, one involving only the subcutaneous tissues.

Second degree dehiscence, one extending down to the anterior rectus sheath.

Third degree dehiscence, one extending down to but not including the peritoneum.

Fourth degree dehiscence, separation of the peritoneum with evisceration.

In a series of 2,000 abdominal laparotomies performed at the Kansas City General Hospital, excluding inguinal herniorraphy, there were ninety-one cases of wound dehiscence, an incidence of 4.6 per cent with an attendant mortality of 14.1 per cent. The incidence and mortality rate according to the degree of dehiscence were as follows:

	Number	*Per Cent Incidence*	*Per Cent Mortality*
First degree	34	1.7	2.9
Second degree	10	0.5	0.0
Third degree	10	0.5	0.0
Evisceration	37	1.9	32.4

Evisceration occurred in 40.7 per cent of dehisced wounds. The incidence and mortality rate of wound evisceration in this series is consistent with the average reported in the literature.

The ninety-one cases of wound dehiscence were evaluated from the clinical records as to:

1. Age.
2. Sex.
3. Nutritional status.
4. Coexistent medical disease.
5. Hemoglobin.
6. Total protein and serum albumin.
7. Length of operation.
8. Type of incision.
9. Technic and sutures used in the wound closure.
10. Day of dehiscence.
11. Primary surgical disease.
12. Wound infection.
13. Wound hematoma.

Age (Table 1)—The average age for all cases of dehiscence was 58.4 years with a range of 17 years to 83 years. The average age in those patients who eviscerated was 57.9 years, the youngest being 20 and the oldest 83. It is obvious that age, per se, is not an etiologic factor.

TABLE 1

THE RELATION OF AGE AND SEX TO THE DEGREE OF DEHISCENCE

Dehiscence	*Age* Range in Years	*Age* Average Age	*Sex* Male	*Sex* Female
First degree	21 to 82	59.3	23	11
Second degree	19 to 83	56.3	5	5
Third degree	17 to 72	50.5	8	2
Evisceration	20 to 83	57.9	31	6
Total	17 to 83	58.4	67	24

Sex—In the entire series of wound dehiscence there were sixty-seven males and twenty-four females with a ratio of approximately 3:1. However, the ratio of men to women in first degree dehiscence was approximately 2:1 as opposed to 5:1 in fourth degree dehiscence or evisceration. This is significantly higher than the ratio of 2:1 reported by Meleny and Howes.[1]

Nutritional Status (Table 2)—On the basis of clinical interpretation sixty-four patients with wound dehiscence could be considered in good nutrition, seven in fair nutrition and eighteen in poor nutrition. In the group with evisceration twenty-three patients were in good nutrition, three in fair nutrition and ten in poor nutrition. In comparison, of the patients with first degree dehiscence twenty-five were in good nutrition, three in fair nutrition and five in poor nutrition. In the group with second and third degree dehiscence the nutritional status of sixteen patients was considered to be good, one fair and three poor. There was a total of seventeen obese patients, four associated with evisceration, seven with first degree dehiscence and six with second and third degree dehiscence.

TABLE 2

THE RELATION OF NUTRITIONAL STATUS TO THE DEGREE OF DEHISCENCE

	Clinical Nutrition			
Dehiscence	*Good*	*Fair*	*Poor*	*Obese*
First degree	25	3	5	7
Second degree ..	8	1	1	3
Third degree ...	8	0	2	3
Evisceration	23	3	10	4
Total	64	7	18	17

Meleny and Howes[1] state that in evisceration they were surprised to find how often these patients were in good condition. However, it is a notorious fact how misleading the apparent nutritional status of an individual can be, particularly when a specific dietary history is not obtained. That subclinical malnourishment can exist has been referred to. This subclinical state, superimposed on a surgical procedure with subsequent negative nitrogen balance is, without doubt, most unphysiologic.

Coexistent Medical Disease—The most common associated medical disease was arteriosclerotic heart disease. Twenty-seven patients had this diagnosis and of these sixteen were associated with evisceration. Furthermore, eight deaths occurred in patients with arteriosclerotic heart disease and all of these were in the group that eviscerated. Chronic pulmonary disease (including emphysema, bronchial asthma and bronchiectasis) was next in frequency with seventeen patients involved. Two deaths occurred, both of them in the group in which evisceration occurred. Other diseases in order of frequency were: benign nodular prostatic hypertrophy, eight; hypertension, seven; alcoholism, five; pyelonephritis, five (with one death occurring in a patient with first degree dehiscence); diabetes mellitus, four; cirrhosis and syphilis, each three; rheumatic heart disease, two (with two deaths both occurring in patients with evisceration); uremia, two (with two deaths both occurring in patients with evisceration); renal calculus, one; tuberculosis, one, and epilepsy, one.

It is clear that the mortality involved in wound dehiscence is largely confined to those patients with evisceration. The trauma and shock attendant with evisceration superimposed upon existent systemic disease, particularly cardiac and pulmonary disease, account for the high mortality.

Hemoglobin—Sixty-nine patients had a relatively normal hemoglobin (greater than 10.0 gms.). Only seventeen patients had hemoglobin values below 10.0 grams. The total average value was 12.1 grams. In the cases of evisceration the average value was 12.2 grams. Thirty patients had normal values and only six had subnormal values in the evisceration group. Anemia is often considered to be an etiologic factor in wound dehiscence. Besser and Ehrenhoft,[25] however, have shown that acute anemia produced in dogs does not retard wound healing. In this series it is apparent that anemia, either acute or chronic, does not have a significant role, per se, in wound dehiscence.

Total Protein and Serum Albumin (Table 3)—The total serum protein in thirty-nine patients was normal while nineteen were at subnormal levels. Of the patients that eviscerated about one half had subnormal protein levels while in the first, second and third degree dehiscences about one out of five patients had subnormal protein levels. One out of three patients who eventually eviscerated had subnormal albumin fractions while only one out of fourteen patients with first, second and third degree dehiscence had subnormal values.

TABLE 3

TOTAL PROTEIN AND SERUM ALBUMIN IN RELATION TO DEGREE OF DEHISCENCE

	Total Protein				
Dehiscence	*Normal*	*Sub-normal*	*Average Value*	*Albumin*	*Average Ratio*
First degree	14	3	5.89	3.54	1.72
Second degree .	4	2	6.24	3.84	1.60
Third degree ...	5	0	6.53	4.04	1.64
Evisceration ...	16	14	5.45	3.27	1.55
Total	39	19			

Normal Total Serum Proteins 5.5-7.5 mg. per cent
Normal Serum Albumin 3.0-5.0 mg. per cent
Nomal Ratio 1.5-2.5

This, again, supports the view that hypoproteinemia is an etiologic factor or predisposes to wound evisceration. However, one cannot say this in regard to dehiscence of a lesser degree. Mersheimer and Winfield,[8] in a recent report of twenty patients with "wound disruption" stated that hypoproteinemia was present in every instance. They, also, emphasized the fact that one may have a deficit of tissue proteins even with a normal serum protein concentration, and a normal serum protein concentration in the presence of low total circulating serum proteins associated with a reduced blood volume. Ravdin[15] pointed out that either low total circulating serum protein or its low concentration in the serum, is indicative of a reduction in the reserve stores of the body protein. It is at the cellular level, then, that clinical or subclinical hypoproteinemia affects the process of wound healing.

Length of Operative Procedure (Table 4)—The duration of the operative procedure in all the cases of dehiscence averaged two hours and seven minutes. The average length of the primary procedure in those patients that eviscerated was two hours and forty-five minutes. The average length of the procedure in eviscerated wounds was only twenty-two minutes longer than that associated with a first degree dehiscence.

TABLE 4

THE RELATION OF TYPE OF INCISION AND DURATION OF OPERATION TO THE DEGREE OF DEHISCENCE

Dehiscence	*Type of Incision* *Transverse*		*Oblique*		*Vertical*		*Average Duration of Operation*
	Upper	*Lower*	*Upper*	*Lower*	*Upper*	*Lower*	
First degree ...	9	2	1	1	8	13	2 hrs. 23 min.
Second degree .	3	0	0	1	1	5	1 hr. 40 min.
Third degree ..	4	1	1	0	0	4	2 hrs. 18 min.
Evisceration ...	13	1	0	0	15	8	2 hrs. 45 min.
Total	29	4	2	2	24	30	2 hrs. 7 min.

Type of Incision (Table 4)—In this series there were fifty-four vertical incisions, thirty-three transverse incisions and four oblique incisions. Contrary to the findings of others, as previously stated, fourteen eviscerations occurred through transverse incisions, only one being in the lower abdomen. A total of twenty-three eviscerations occurred through vertical incisions, eight being in the lower abdomen. In this series, the direction of the incision had no bearing on the incidence of evisceration. Evisceration was more common in upper abdominal incisions than in lower abdominal incisions. One must question the factualness of Singleton's statement[9] "Wound disruption in the upper abdomen can be almost, if not completely, eliminated by the use of carefully made anatomical incisions."

Technic and Sutures Used in the Wound Closure—In the series of ninety-one patients the peritoneum was closed with a continuous chromic catgut suture in 60.4 per cent of the cases. This immediately casts suspicion on this type of peritoneal closure. One would be inclined to agree with the contention of Burch and Bradley[12] that a continuous catgut closure of the peritoneum is followed by a high rate of wound "disruption." These authors further state that the process of wound "disruption" begins with a separation of the peritoneum allowing the protruding viscera to progressively disrupt the remaining layers of the wound. However, in a first degree dehiscence the peritoneum is intact. In comparing those patients with superficial dehiscence to those with evisceration it was found that the incidence of use of the continuous chromic catgut suture was approximately equal in the two groups—64.7 per cent compared to 62.2 per cent. Therefore, in this series, the use of a continuous catgut suture, per se, is not significant in the etiology of wound evisceration. The occurrence of evisceration associated with other types of closure, including silk, cotton, wire and combinations of these, lends support to the conclusion of Meleny and Howes[1] that "no method of closure or type of suture is proof against wound disruption."

Day of Dehiscence (Table 5)—The average length or time following surgery for the dehiscence to occur was 9.7 days, with a wide range of three to forty-six days. Evisceration occurred on the average of 9.2 days following surgery with a range of three days to twenty-one days. This is a common observation and on the average occurs at a time when normally one would expect active fibroplasia and good tensile strength.

TABLE 5

POSTOPERATIVE DAY OF DEHISCENCE

Dehiscence	*Range in Days*	*Average Number of Days*
First degree	6 to 24	9.9
Second degree ..	6 to 46	11.9
Third degree ...	4 to 10	7.6
Evisceration	3 to 21	9.2
Total	3 to 46	9.7

Primary Surgical Disease (Table 6)—Of the ninety-one patients with wound dehiscence 24.2 per cent had a malignancy as the primary disease; 14.3 per cent had a nonperforated peptic ulcer; 13.2 per cent had biliary tract disease; 8.8 per cent had a perforated peptic ulcer, and 6.6 per cent had trauma by gunshot or knife. Of interest is the fact that all but four of the patients with wound evisceration had their primary lesion in one of these five categories. Of the eviscerations 32.4 per cent were associated with cancer; 24.5 per cent with nonperforated peptic ulcer; 13.5 per cent with biliary tract disease; 10.8 per cent with perforated peptic ulcer, and 8.1 per cent with trauma by gunshot or knife. Colp[4] observed that wound "disruption" was more frequent in cancer, uterine fibroids

TABLE 6

TYPE OF PRIMARY DISEASE

Dehiscence	*Trauma* *Gunshot & Knife* *No.*	*%*	*Biliary Tract Disease* *No.*	*%*	*Peptic Ulcer* *Perforated* *No.*	*%*	*Non-perforated* *No.*	*%*	*Cancer* *No.*	*%*
First degree ...	3	8.8	4	11.8	2	5.9	3	8.8	6	17.6
Second degree .	0	0.0	2	20.0	0	0.0	0	0.0	2	20.0
Third degree ..	0	0.0	1	10.0	2	20.0	1	10.0	2	20.0
Evisceration ..	3	8.1	5	13.5	4	10.8	9	24.5	12	32.4
Total	6	6.6	12	13.2	8	8.8	13	14.3	22	24.2

and chronic infections of the biliary system. Hartzell et al.[10] reported that in 1,458 cases of wound "disruption" 22 per cent presented with carcinoma and 13.4 per cent with peptic ulcers. Glenn and Moore[26] found that the incidence of evisceration in malignant cases was three times that of nonmalignant cases.

Wound Infection (Table 7)—In the entire series of ninety-one patients wound infection was associated with dehiscence in twenty-nine or 31.9 per cent. In the thirty-seven patients who eventually eviscerated seven or 18.9 per cent had a wound infection. Of the thirty-four patients with a first degree dehiscence ten or 29.4 per cent had a wound infection. In the twenty patients with second and third degree dehiscence there were twelve wound infections. In this series, then, the incidence of wound infection was significantly higher in dehiscence short of evisceration.

TABLE 7

WOUND INFECTION AND WOUND HEMATOMA IN RELATION TO DEHISCENCE

	Wound Infection		*Wound Hematoma*	
Dehiscence	*No.*	*%*	*No.*	*%*
First degree	10	29.4	12	35.2
Second degree	7	70.0	3	30.0
Third degree	5	50.0	4	40.0
Evisceration	7	18.9	4	10.8
Total	29	31.9	23	25.3

Wound Hematoma (Table 7)—In the entire series there were twenty-three or 25.3 per cent of the patients with wound hematoma associated with the dehiscence. Only in four instances of evisceration was there a wound hematoma, whereas, nineteen hematomas occurred in the most superficial dehiscences. Wound hematoma, in this series, was more frequently associated with dehiscence short of evisceration.

DISCUSSION

Harvey[22] has said, "The function of the surgeon is to establish and maintain the optimum conditions for the healing of the wound by avoiding or controlling the factors that may interfere with this normal biologic process." The basic principles of wound healing are recognized. The cause of wound dehiscence is known, as attested to by innumerous authors and individual physicians. Regimes for the prophylaxis of wound dehiscence have been proposed and utilized. Yet, over a span of a half century the incidence of wound dehiscence and the mortality therefrom have changed but little. Either the function of the surgeon has fallen short in wound healing or the etiology of this complication is still beyond our grasp.

In the analysis of this series it is apparent that there is a distinct difference between the dehiscence of first, second and third degree and that of wound evisceration in regard to etiology, morbidity, mortality and treatment. Dehiscence short of evisceration is more often associated with wound infection and hematoma. This may be construed to imply that there is an element of faulty technic involved or unavoidable contamination of the wound. However, evisceration is more commonly associated with malignancy, peptic ulcer and biliary tract disease in which chronic nutritional deficits are frequently present. In addition to this, chronic nutritional deficits secondary to inadequate diet on an economic basis certainly is not infrequent in the charity hospital. Even though it is obvious that hypoproteinemia and ascorbic acid deficits are tangible and significant findings in cases of wound evisceration this does not preclude faulty surgical technic associated with various postoperative complications as a cause of some wound eviscerations. Certainly the principles of good blood supply, hemostasis, control of infection, avoidance of tissue strangulation and meticulous surgical technic and wound closure must be adhered to. In addition, it is mandatory that such postoperative complications as vomiting, severe coughing, abdominal distention and urinary retention be minimized or prevented.

From the nutritional viewpoint, wound evisceration may be more directly related to a chronic deficit rather than to a relatively acute deficit. Thus patients with acute surgical lesions and infectious processes may rapidly develop a negative nitrogen balance and protein deficit. On correction of the offending foci and adequate preoperative and postoperative supportive treatment with blood transfusion, protein supplements, vitamins and adequate diet, it may be assumed that these patients do not develop the abnormal state leading to evisceration. Harvey[22] demonstrated that in adult rats with acute protein deficiency by starvation the healing rate of wounds, as measured by tensile strength, was perfectly normal. He, however, admitted that this may not be true in a chronic deficiency state. Thus, patients with chronic nutritional deficits, from whatever cause, cannot be expected to be restored to a normal state by a few days of "preoperative preparation." These are the patients likely to have a wound dehiscence.

The disturbing fact opposed to this viewpoint and the enigma of the understanding of wound evisceration is the repeated observation that after closure of the eviscerated wound, healing by third intention occurs with surprising normalcy, this healing occurring in the patient with the same base line of nutritional deficit on which is superimposed shock, surgery and additional nitrogen deficit. Savlov and Dunphy[27] have shown that during the first seven days the tensile strength of the resutured wound in the experimental animal is uniformly stronger than that of the primary wound. Furthermore, these authors, in investigating the possible role of the adrenocorticoids, found that in rats cortisone inhibited fibroplasia and abolished healing when given prior to the wound. However, if cortisone was given after the healing mechanism was initiated, no effect on the healing process was produced. The explanation of this paradox is still to be evolved. When the solution is found the true etiology of wound evisceration will be understood and it will be possible to prevent this frustrating and serious postoperative complication of abdominal surgery.

Recent investigation into the relationship of agammaglobulinemia and successful skin homografts[28] certainly provides a new concept in analyzing the mechanism of tissue repair and healing. What relation, if any, does the gammaglobulin fraction of the serum proteins have with the process of wound healing? One may postulate that with normally functioning body mechanisms of phagocytosis, enzymatic breakdown and absorption of tissue debris, suture material, and minute foreign bodies, the antigen-antibody activity remains at such a level as to allow normal wound healing. However, when these mechanisms are temporarily decreased or absent, the foreign material and debris in the incisional wound, acting antigenically, initiate a process of rejection which leads to the abnormal tissue state found in the eviscerated wound. The marked adrenocortical stimulation secondary to this stress reaction results in a marked drop in antibody formation or in the gammaglobulin fraction of the serum protein or both. No rejection response is possible due to the lack of specific antibody response and the normal process of wound healing proceeds.

Hypoproteinemia and ascorbic acid deficit are only a part of a disturbed, complex biological process involving intricate enzymatic and hormonal systems. Colp[4] crystallized the problem twenty-four years ago with the assertion, "Wound dehiscence will never be an unavoidable surgical complication until methods are available to accurately differentiate those patients with poor reparative powers, and until means are at hand which will unfailingly promote the prompt healing of tissues in these specified cases."

SUMMARY AND CONCLUSIONS

1. Despite recognition of many possible etiologic factors, wound evisceration continues to be a serious and frustrating postoperative complication.

2. Some aspects of wound healing in relation to specific biochemical deficiencies are discussed.

3. In a series of 2,000 abdominal laparotomies at the Kansas City General Hospital No. 1 there were ninety-one cases of wound dehiscence. There were thirty-seven cases of wound evisceration, an incidence of 1.9 per cent with an associated mortality of 32.4 per cent. There were fifty-four cases of superficial wound dehiscence, an incidence of 2.7 per cent with an associated mortality of 1.9 per cent.

4. These patients were analyzed as to age, sex, primary surgical disease, nutritional status, serum protein, type of incision, technic and sutures used in wound closure, wound infection, wound hematoma, length of operation, day of dehiscence, hemoglobin and coexistent medical diseases.

5. There is a distinct difference in etiology, morbidity and mortality between superficial wound dehiscence and wound evisceration.

6. The exact mechanism involved in wound evisceration awaits further investigation in the form of histochemical study of normal and eviscerated wound tissue, patterns of adrenal corticoid response, and, perhaps, the state of the serum gammaglobulin fraction.

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Acknowledgments: Read and approved by Dr. Ralph R. Coffey, Director of Surgery, Kansas City General Hospital. Thanks to Lydia Petrich, Chief Record Librarian, and her staff for time and aid in preparing this paper.

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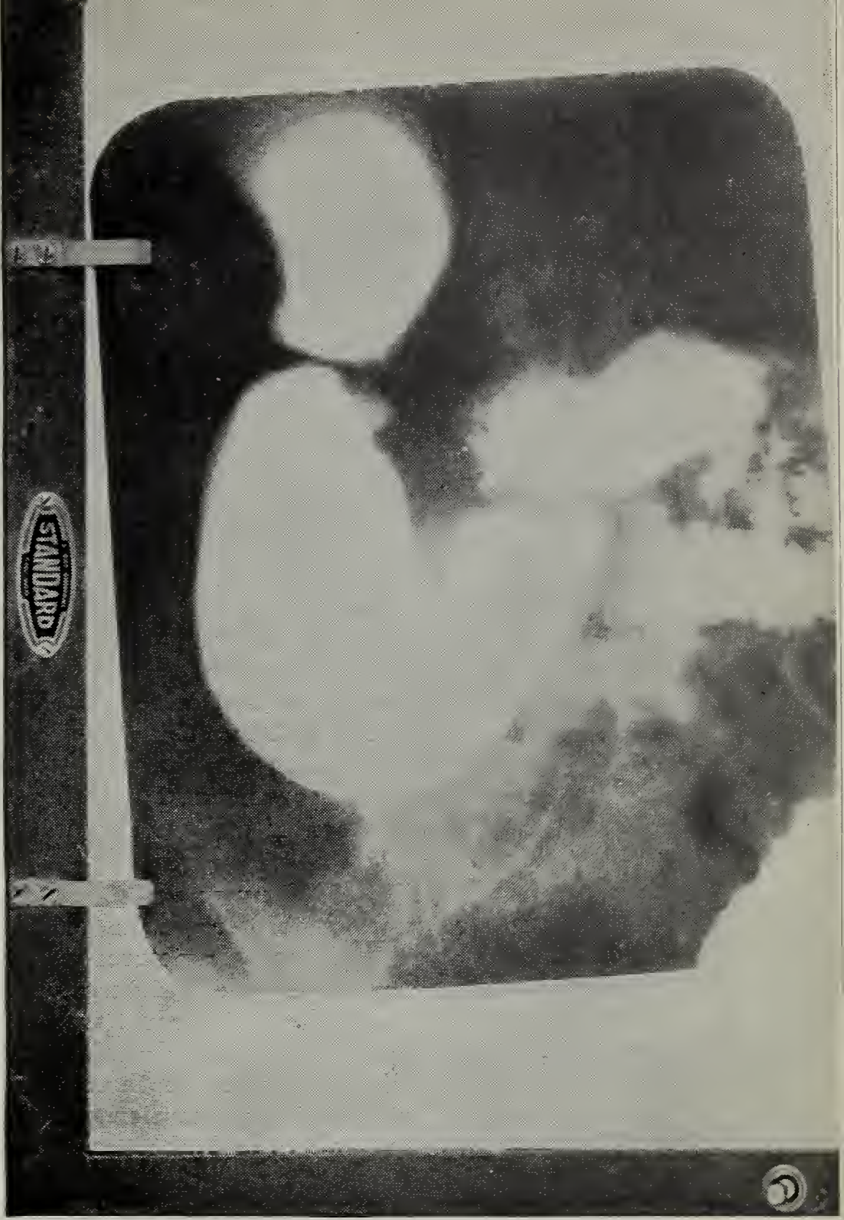

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Case Report

Cervical Dystocia

Following Conization of the Cervix

LOUIS KIRTZ, M.D., *Webster Groves*

CONIZATION of the cervix with the electro-surgical unit has become an increasingly popular procedure. It is a simple operation and can even be done in the office in many cases. The reason for conization is quite laudable, being the elimination of cervicitis, cervical lacerations and ectropion. Most gynecologists are agreed that by curing such loci of chronic irritation much is done in decreasing the incidence of cervical carcinoma. I wish, however, to introduce a word of caution concerning this procedure.

Miller and Todd[18] in 1938 reported 899 conizations and the follow-up on these cases. In 6.46 per cent of these cases there were strictures which necessitated dilatation. Most of the strictures were mild, but in some cases the entire canal was obliterated by scar tissue. They concluded also that when pregnancy followed conization there were some harmful effects. In their experience there were more premature labors and abortions than were expected on a percentage basis.

I have had a number of patients in the last five years who have had difficulty in the other direction; namely, cervical dystocia at or beyond term. In many instances, there was no prior knowledge that a conization had been done because, in obtaining a history from a patient, it was the practice to ask about operations in general. Some patients in this group merely mentioned a curettage for excessive bleeding. Others had conizations in the doctor's office or as an additional procedure after suspension or appendectomy. It was only later when the patients were asked directly whether conization had been done that we got affirmative answers. Now it is routine to ask every new obstetric patient a direct question about conization.

There are varying degrees of cervical dystocia found after conizations, ranging from a mild form in which labor is slowed somewhat to the severe case in which vaginal delivery is impossible. In most cases the type of labor and the findings are rather typical. There are often Braxton-Hicks contractions, some of which are quite painful for days or even weeks before actual labor but, in spite of this, vaginal examinations in the office reveal no dilatation of the cervix. The lower uterine segment becomes thin; at times the cervix is almost entirely effaced but the os still remains pin point in size.

The patient in active labor may have hard contractions but the cervical findings may remain the same unless the cervix finally becomes paper thin. At that point, rectal examination can be misleading. Often the examiner will be certain that there is complete dilatation. Some patients are moved to the delivery room and expected to deliver soon, and then vaginal examination reveals the true situation. Even vaginal digital examination can be misleading because the os is so tiny it cannot be felt, and a speculum must be used to be certain of the situation. At that point, if the cervix is extremely thin it can tear spontaneously or, if the fetal head has pushed it low enough to press against the symphysis, partial necrosis or annular detachment can occur. If the cervix is thin, sometimes the obstetrician can cautiously dilate it with the finger. If this is done with care to avoid laceration, smooth dilatation to completion may be carried out.

CASE REPORTS

Case 1. Mrs. R. P., a 32 year old gravida vi, para iii, had conization in 1952 after three full term pregnancies, all of which terminated in short labors. This pregnancy was uneventful until the onset of labor on February 2, 1955, ten days before the expected delivery date. With good contractions, the cervix became paper thin but with a finger tip dilatation. This remained unchanged for two hours and a vaginal examination was done. The cervix was slowly and gently stretched to 3 cm. dilatation, and no more manipulation was done. Within forty minutes the patient had complete dilatation and was delivered by perineal forceps. Inspection of the cervix revealed no lacerations and at the six weeks checkup the cervix was well healed.

In this case, cautious manual dilatation of the effaced cervix was efficacious in allowing normal progression of labor. It is felt that letting such a cervix alone invites more danger of uncontrolled laceration because of the extreme thinning of the lower uterine segment, not to mention unnecessarily prolonged, ineffectual labor.

The more marked case of cervical stenosis probably occurs when the whole canal is scarred. When this occurs the cervix does not efface well, but with hard labor the lower uterine segment thins out so much there is danger of rupture of the uterus. With a rather long cervix manual dilatation is impossible, and cesarean section is necessary. Some patients in the group definitely go beyond term and have large babies which further complicate the situation.

Case 2. Mrs. W. S. was first seen because of infertility. By a previous marriage she had had three normal full term pregnancies. She had been married this time for one and a half years. There was a history of conization done eleven months before she was seen. Examination revealed a normal pelvis except for marked cervical stenosis. The external os did not admit a probe. The patient was advised to have a dilatation and curettage and stem pessary, and it was suggested that the husband be checked by a urologist. The urologist found and treated a chronic prostatitis in the husband and the patient became pregnant before her operation could be arranged. Her expected delivery date was October 27, 1952. At about that time she began having contractions too hard to classify as Braxton-Hicks contractions; they could easily be timed in the office at every ten minutes. However, the cervix remained closed. On November 11, 1952, the cervix was still unchanged and the contractions were uncomfortable. At that time a low cervical section was done and a living 4,100 gm. infant delivered. After delivery of the baby and placenta a uterine dressing forceps was placed in the cervical canal through the uterine incision and the blades opened to dilate the cervix. The canal would not admit a finger.

Case 3. Mrs. R. K., a physician's wife, had had conization after three pregnancies, two of which had ended in early abortions and the third in a term pregnancy. In this pregnancy the expected delivery date was April 28, 1950. She went to the hospital on May 3 in semi-active labor which continued on and off until May 8 when low cervical cesarean section was done because of a scarred, undilated cervix. A living 3,860 gm. infant was delivered.

These cases are not the only ones encountered in which conization led to cervical dystocia. Almost every obstetrician has had one or two to talk about but, unfortunately, the discussion is usually not heard by general surgeons and general practitioners who do most of the conizations. I do not wish to condemn conization entirely as a surgical procedure, but suggest that it be done with hesitancy in the childbearing age. If it is done, it should be done with caution. I believe scarring can be kept to a minimum by observing the following precautions: (1) The electrode should not be placed deeply in the cervical canal. The higher in the canal the electric scalpel is used the greater the danger of wide scar. (2) The cutting current should be used briefly. If the current is interrupted every 3 or 4 seconds the temperature at the cervix is much less than it is with the current continuous while a 360 degree arc is made with the electrode (Karnaky[13]). (3) If the cone of tissue removed has any significant altitude, Sturmdorf sutures placed to cover the burned area with epithelium will cause less scar tissue than would occur if the denuded area is allowed to granulate. (4) Infection in the coned area should be kept down to a minimum with the use of antiseptic suppositories and douches.

Patients who have had conizations and in whom pregnancy may occur, should be told specifically what the procedure was and that she should tell her obstetrician that it was done.

No attempt was made to arrive at statistical conclusions. Follow-ups on all conizations done by a number of physicians were tried but could not be done practically. I have not had any dystocias occur in patients in whom I have done the conization, but perhaps someone else had trouble with one of my patients. I am not suggesting that the incidence of cervical stenosis and dystocia after conization is high; undoubtedly it is not. But the fact that this complication does occur has not been accorded the attention it should have. Any operative procedure that could possibly adversely affect future pregnancies should be used with caution.

In closing, I wish again to state that conization of the cervix done with the electro-surgical unit is, in the childbearing age, a possible source of cervical dystocia, and should be done only when other methods of treating cervical erosion, laceration and cervicitis are not effective.

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Special Article

Open-Heart Operations

C. ROLLINS HANLON, M.D., *St. Louis*

OPERATIONS WITHIN the open heart are now regularly carried out in many surgical centers. Recent developments in this field and the prospects for future advances will be mentioned in commenting on the present status of open-heart surgery.

More than ten years ago the field of cardiovascular surgery underwent tremendous expansion with the successful division of a patent ductus arteriosus, the resection of an aortic coarctation and the shunting operation for relief of cyanosis in tetralogy of Fallot. The stimulus of these extracardiac operations led to rapid developments in intracardiac surgery, notably the splitting of the stenotic mitral valve by the finger alone or by various instruments under blind, digital control. As the efficiency of this operation increased and its mortality fell to a low level, the blind attack on the remaining three valves of the heart was also developing rapidly. The operation of dividing the stenotic pulmonary valve by an approach through the myocardium was modified by approaching the valve through the pulmonary artery, first blindly and then under direct vision with the circulation shut off for about three minutes. A longer period of circulatory arrest at normal body temperature was forbidden by the danger of ischemic damage to the brain.

General hypothermia with the patient's temperature around 80F. was next employed to increase the tolerable time of circulatory arrest. This permitted longer and more complex intracardiac procedures and a remarkable variety of successful operations have been reported by certain pioneers in this field. Despite the basic simplicity of the operative procedure once the patient has been cooled to the desired level, there are certain inconveniences, complications and dangers attendant on hypothermia and many have preferred to keep the patient at normal temperature while the function of his heart and lungs is replaced by a substitute pumping and oxygenating mechanism. Such a mechanism may be purely biological, as when a healthy donor is placed in cross circulation with the patient during operation; it may be purely mechanical as in the "heart-lung machine," or it may combine a mechanical pump with an isolated fresh lung from an animal or human cadaver. Despite a favorable experience with cross circulation there is understandable reluctance to submit a healthy donor to the inconvenience and danger of this technic. Thus it has been supplanted by other methods, particularly the mechanical pump oxygenators.

Pump-oxygenators are not new but successful clinical application is a relatively recent product of the accelerated activity in this field. The pumping mechanism offers no great problem as long as mechanical trauma to the blood is minimized; many types of pumps have been successfully used. The proper oxygenation of an amount of blood equal to an adequate cardiac output in adults is a more troublesome problem which has been approached in two ways.

The first assumes that the usual basal cardiac output should be provided by the pump oxygenator; under this premise, the complex and extremely expensive pump oxygenator of John Gibbon, Jr., was developed and used successfully by him in the repair of an atrial septal defect in 1953. Starting from the working drawings of Gibbon, the machine has been refined and modified by Kirklin and others who have used it satisfactorily in a variety of open-heart operations. In some of these operations it has been possible to pump amounts of blood equal to the basal cardiac output. In others, possibly because of difficulty in drawing blood from the patient into the machine, there have been substantially smaller rates of flow.

The second approach starts from the premise that the patient may be safely maintained with an oxygenated blood flow well below the basal level. This minimum flow has been found in animals to approximate the amount returning to the heart through the azygos vein. The possibility of relatively safe perfusion at such low rates of flow has been called the "azygos principle." Using this principle of decreased flow, and the simple "bubble oxygenator" of DeWall, surgeons at the University of Minnesota have accumulated a large experience with definitive cardiac surgery under direct vision. They have not had difficulty with hemolysis or with the postoperative bleeding which has plagued many other clinical investigators using various types of machines. In a limited clinical experience with the DeWall oxygenator, we have not encountered the hemorrhagic tendency reported by some investigators using similar apparatus.

In all oxygenators involving direct contact between blood and oxygen there is some possibility of damage to the blood because of this contact. This possibility exists in the Gibbon type as well as in the simpler bubble oxygenators. Because of this, many are investigating oxygenators in which a semipermeable membrane is placed between blood and oxygen. Rapid and substantial progress

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in solving these important engineering details may be expected. Whether the heart-lung machine of the future will follow the vastly complex pattern of the Gibbon type apparatus or a simpler pattern such as the bubble oxygenator will be decided by increasing experience and by comparative performance of the various machines under similar conditions.

The advent of these newer tools has made operable many patients who previously would have been rejected as unsuitable for surgery or who might have undergone a palliative procedure of doubtful or temporary benefit. This is not to minimize the advantages of palliative operations such as the Blalock procedure for tetralogy of Fallot, which has saved the lives of thousands of children, improved the functional capacity of myriad others and permitted many to live till the present day when definitive correction of such defects is feasible. Nor does it indicate that all patients requiring cardiac operations should be scheduled for operation now under assistance of the pump-oxygenator. In some instances operation should be deferred while in others the indirect or blind procedure will provide definitive correction of the defect or will permit survival until more complete correction can be done using the most recent technical improvements. A decision in this area may require most critical analysis.

With the current attention to open-heart operations, one must not forget certain advantages of closed procedures. They are often inherently safer, have a wider applicability because of their simplicity and permit estimates of the result by palpation and other tests at various stages during the operation. In the long run, of course, complete correction under direct vision has a strong appeal but it should be simplified for widest applicability.

As a by-product of these operations, fundamental advances are being made in the anatomy, physiology and chemical behavior of the heart. An even greater challenge is presented by the problem of biological individuality, the barrier to successful tissue or organ transplant from man to man. Such transplants are possible in identical twins but not as yet in anyone else. When this problem is solved, the opportunity for reconstructive surgery will be unlimited, not merely in the heart but in all of the body.

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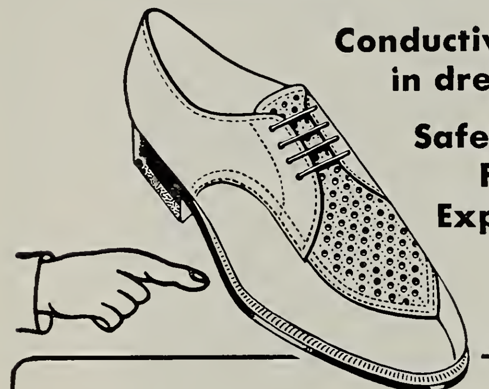

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President's Page

H. R. 7225 was signed by the President and is now the law of the land, known as Public Law 880. This controversial legislation was opposed vigorously by the medical profession and other groups. However, their efforts were of no avail as the act was adopted on the last day of the session. Among its provisions are:

(1) Cash payments for total disability at age 50. (Total disability is defined as disability extending at least six months. The covered worker is then entitled to receive the social security payment due at age 65 for the duration of his disability. Disability will be determined by medical examinations secured and paid for by the applicant. Such determinations will be made in Missouri, presumably, by the office of Vocational Rehabilitation. The regulations have not been released up to the time of publication, thus the word "presumably." Presently, that agency handles the so-called "disability freeze" section of the Social Security Act.)

(2) An additional ½ per cent payroll tax effective Jan. 1, 1957 (half to be paid by employee and half by the employer) and ⅜ per cent additional tax for the self employed. The tax now is 4 per cent payroll tax on the first $4,200 of income (half paid by the employee and half by the employer).

(3) Lawyers, dentists, osteopaths and a few other small groups are included in the Social Security System for the first time. (Doctors of medicine are the only significant group not now included in the Social Security Act.)

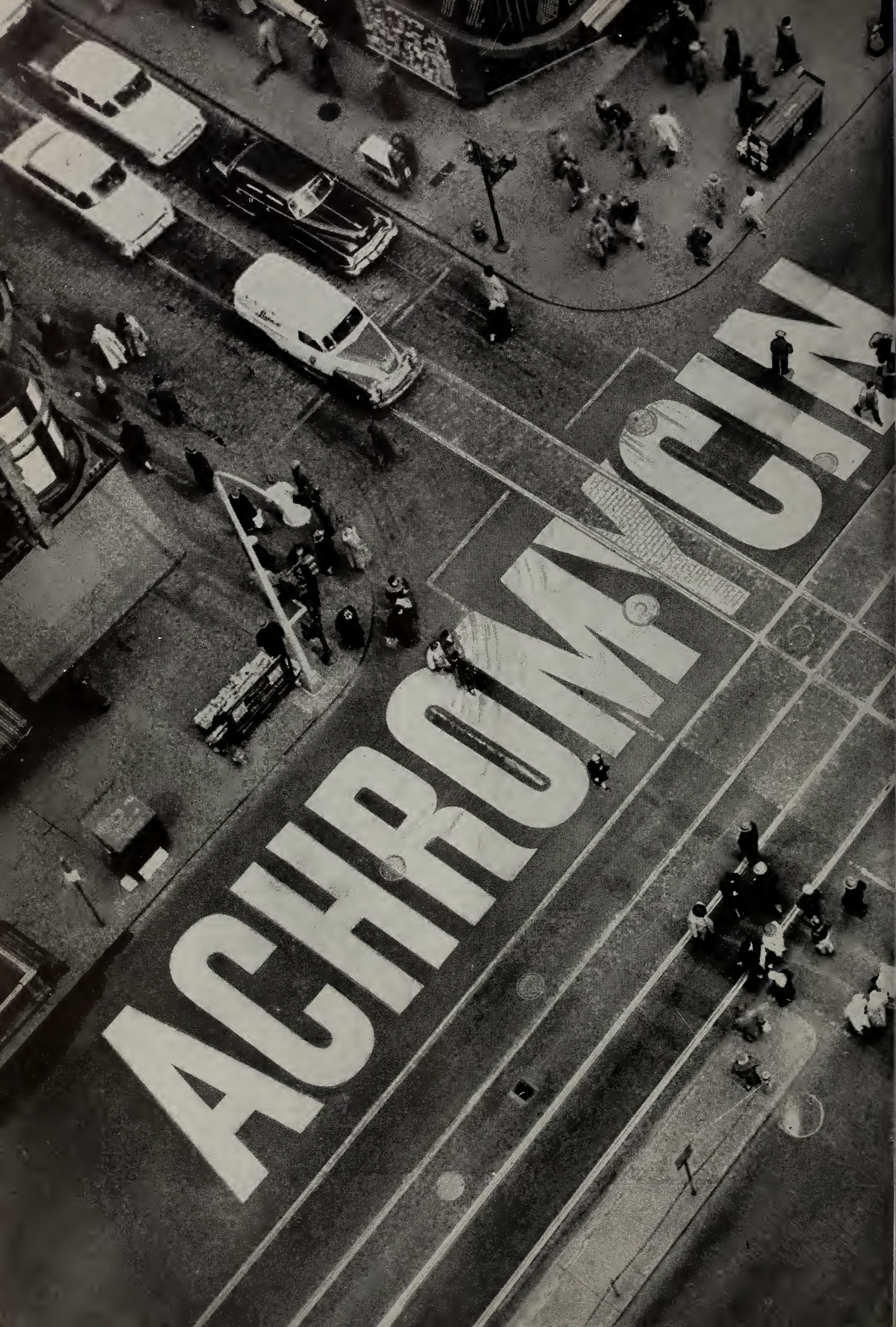
(4) The retirement age for women was reduced from age 65 to age 62.

(5) An increased amount of federal funds is made available to the states for persons on public assistance rolls.

(6) Federal funds are ear-marked to states, on a matching basis, for the medical care of public assistance recipients.

Whenever regulations as to how the program will be administered are furnished, they will be published in Missouri Medicine.

Carl Vohs M.D.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Doctor, you have probably seen one or more of these current Parke-Davis advertisements in leading general magazines—and you know that the much-talked-about theme of these ads is that *prompt and proper medical care is one of today's biggest bargains.* Through our sales representatives who call on you, and your letters to us, we know that this is the type of laity advertising *you* like to see.

The reproduction on the facing page is the latest example of this advertising. It tells the public that they can discuss medical fees with their physicians without embarrassment . . . and that such discussions improve the important relationship between doctor and patient.

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EDITORIALS

Public Law 569

A résumé of the provisions of Public Law 569 was published in the August issue of Missouri Medicine, pages 720 and 721. This act provides medical care for dependents of uniformed personnel and will take effect on December 8, 1956.

The purpose of the act, as stated, is "To create and maintain high morale throughout the uniformed services by providing an improved and uniform program of medical care for members of the uniformed services and their dependents."

We are informed that there are approximately 2,600,000 dependents eligible for medical care, of whom 800,000 will receive care in civilian facilities. No estimate is available as to the number of dependents residing in Missouri.

The Department of Defense desires to arrange annual agreements with state medical associations or their designated agents to provide for medical and surgical treatment for these dependents. Since they are now entitled to full treatment at government facilities without charge, the Department of Defense will consider agreements for care rendered in civilian facilities only on a full service basis.

State medical associations have been requested to adopt full service benefit schedules for medical and surgical procedures. The fee schedules are to be arranged on the basis of the "usual and reasonable charges" made by physicans for services rendered to persons falling in low and medium income groups. It has been estimated that 90 per cent of the military personnel involved earn less than $5,000 per year, including subsistence allowances.

It is estimated that a high percentage of care rendered will involve obstetric and pediatric care.

The Committee on Medical Economics has been considering the legislation. The recommendations of the Committee will have been submitted to the Council by the time of this publication. The Council action will be reported by direct mail in the near future.

A. M. E. F.

Members have received, or soon will receive, a letter from the Chairman of the Committee on A. M. E. F., James P. Murphy, M. D., St. Louis, urging financial support.

If you have not already done so, you again are urged to contribute to this worthy cause. Please remember that your contribution is tax deductible and that you may allocate your gift to a particular medical school. If you designate a particular school, your gift goes to that school in addition to the amount given by the national fund.

Since the report of the Missouri Committee, presented at the House of Delegates meeting last April, gives a good picture of the participation of Missouri members in 1955, it is republished here.

"Progress in the last year was marked by a gradually increasing number of participants in the support of medical education in our state. The number contributing to the A. M. E. F. has not increased appreciably but we are now able to tabulate the total number contributing through alumni funds. We find this to be substantial in that in the the last year, 905 physicians in the State of Missouri gave upward of $38,000 toward the support of medical education. This placed us fifteenth amoung forty-eight states, both in number of participants and in the amount of cash given.

"It is interesting to note that in the State of Missouri our three medical schools received in grants from the National Fund for Medical Education an excess of $74,000. Of this amount, St. Louis University School of Medicine received the largest total, that of $41,173.85. In second place was Washington University School of Medicine, which received $34,957.35, and the University of Missouri received $15,433.34. You will note that since we gave only $38,000, and received in excess of $74,000, certainly someone else is making up the difference between these two figures. Compared with some states, we find that Missouri physicians have not done well and efforts should be redoubled to try to reach a larger number of doctors in this state. When we examine the number giving, we find that only 905 physicians contributed toward this purpose, and this number represents considerably less than 25 per cent of the membership in the Missouri State Medical Association. Certainly every effort should be made so that every member of our Association will contribute toward medical education."

The A. M. E. F. was established and sponsored by the American Medical Association to raise funds from the medical profession. The National Fund for Medical Education was chartered by Congress to seek support for the medical schools from business and industry. Each year since 1951 the money raised by the volunteer committees, working for these two organizations, has been pooled and distributed in the form of unrestricted grants to the medical schools. In this way $9,598,491 has been given to the nation's eighty-one approved medical schools.

ORAL PENICILLIN

FOR *BETTER*

AND *MORE CONSISTENT* ABSORPTION

"Because of the better and more consistent absorption of penicillin V from the intestinal tract, it would appear that this type of penicillin is preferable to penicillin G when oral administration is to be used."[1]

1. Martin, W. J., et al.: J.A.M.A. *160*:928 (March 17) 1956.

PEN•VEE•*Oral* and PEN•VEE *Suspension* permit new dependability in oral-penicillin therapy—dependable stability in gastric acid, dependable and optimal absorption in the duodenum. "Not being destroyed by acid in the stomach, as is penicillin G, penicillin V remains available in larger amounts for absorption."[1]

PEN·VEE* *Oral* and *Suspension*

PEN·VEE·*Oral* is Penicillin V, Crystalline (Phenoxymethyl Penicillin)
PEN·VEE *Suspension* is Benzathine Penicillin V Oral Suspension

*Trademark

Wyeth ®
Philadelphia 1, Pa

Missouri Medical Meetings

Annual Meeting Missouri Academy of General Practice, Governor Hotel, Jefferson City, Oct. 24, 25, 1956.

Missouri State Medical Association Annual Session, Kansas City, March 31, April 1, 2, 3, 1957.

St. Louis Pediatric Society—second Thursday of each month, September through May at Medart's Restaurant, 8:00 p.m.

Component Society Meeting Dates

Audrain County Medical Society—third Monday of each month.

Barton-Dade County Medical Society—third Wednesday of each month.

Benton County Medical Society—meets only on call.

Boone County Medical Society—first Tuesday of each month.

Buchanan County Medical Socitey—first Wednesday of each month.

Butler-Ripley-Wayne County Medical Society—first Wednesday of each month.

Callaway County Medical Society—third Thursday of each month.

Cape Girardeau County Medical Society—first Monday of each month.

Chariton-Macon-Monroe-Randolph County Medical Society—second Thursday of each month September through May.

Clay County Medical Society—last Tuesday of each month.

Clinton County Medical Society—meets only on call.

Cole County Medical Society—third Tuesday of each month.

Cooper County Medical Society—first Monday after the 15th of each month.

Dallas-Hickory-Polk County Medical Society—first Wednesday of each month.

Dunklin County Medical Society—third Tuesday of each month.

Franklin-Gasconade-Warren County Medical Society—last Tuesday of each month at the St. Francis Hospital, Washington, at 12:30 p.m.

Grand River Medical Society (Caldwell-Carroll-Livingston, Grundy-Daviess, Harrison, Linn, Mercer, DeKalb)—second Thursday of each month.

Greene County Medical Society—fourth Friday of each month.

Henry County Medical Society—meets only on call.

Holt County Medical Society—meets only on call.

Howard County Medical Society—meets only on call.

Jackson County Medical Society—fourth Tuesday of each month execpt June, July and August, at auditorium of General Hospital No. 1.

Jasper County Medical Society—second Tuesday of each month, September through May.

Jefferson County Medical Society—meets only on call.

Johnson County Medical Society—meets only on call.

Laclede County Medical Society—second Monday of each month at 6:00 p.m., at the Louise Wallace Hospital, Lebanon.

Lafayette-Ray County Medical Society—second Tuesday of each month at 7:30 p.m., at the Victory Cafe, Lexington.

Lewis-Clark Scotland County Medical Society—meets only on call.

Lincoln-St. Charles County Medical Society—third Thursday of each month.

Marion-Ralls-Shelby County Medical Society—fourth Tuesday of each month. 7:30 p.m.

Miller County Medical Society—meets only on call.

Mineral Area County Medical Society (St. Francois-Iron-Madison-Washington-Reynolds-Ste. Genevieve)—fourth Thursday of each month.

Moniteau County Medical Society—second Thursday of each month.

Newton County Medical Society—meets only on call.

Nodaway-Atchison-Gentry-Worth County Medical Society—first Monday in February, April, October and December.

North Central Counties Medical Society (Adair-Schuyler-Knox-Sullivan-Putnam)—meets only on call.

Ozarks Medical Society (Barry-Lawrence-Stone-Christian-Taney)—second Tuesday of each month September through June.

Pemiscot County Medical Society—third Thursday of each month.

Perry County Medical Society—second Thursday of each month.

Pettis County Medical Society—third Monday each month September through May.

Phelps-Crawford-Dent-Pulaski-Maries County Medical Society—fourth Thursday of each month.

Pike County Medical Society—third Tuesday of each month.

Platte County Medical Society—meets only on call.

St. Louis County Medical Society—second and fourth Wednesday of each month.

St. Louis Medical Society—first, third and fifth Tuesday of each month October through May.

Semo County Medical Society (Stoddard, New Madrid, Mississippi, Scott)—third Wednesday of each month September through May.

South Central Counties Medical Society (Howell-Oregon-Texas-Wright-Douglas-Ozark)—fourth Wednesday of each month.

Vernon-Cedar County Medical Society—meets only on call.

Webster County Medical Society—meets only on call.

West Central Missouri Society—second Thursday of each month.

Musings of the Field Secretary

The 54th Annual Missouri State Fair at Sedalia, was held from August 18 to 26. The total attendance during the nine-day session numbered 537,066, which was 5,109 short of the all-time high set in 1955.

Many of the Fair visitors viewed the Educational Exhibit presented by the Committee on Health and Public Instruction of the Missouri State Medical Association. The exhibit, entitled "Food Facts and Fallacies," was secured on loan from the Bureau of Exhibits of the American Medical Association. No doubt but that some of the people inspecting the exhibit had some of their traditionally held "food fads" ideas disturbed by facts presented through the exhibit. Some may even have gone home to begin having fish and milk at the same meal. Others, however, may still be somewhat disturbed about "hard water" causing their "arteries to harden."

Large quantities of free pamphlets on various health subjects were available at the exhibit and were freely taken by the booth visitors.

in the raw
TAKE
SOME

The exhibit had many visitors.

Speaking of "free" items at the Fair, one finally had to conclude there were not many. However, there was one "free item" that deserves special mention. The Pettis County Medical Society staffed the State Fair Dispensary without charge, as a public service. Members of the Society worked on four hour shifts around the clock each day, excepting the hours 1:00 a.m. to 5:00 a.m.

(Continued on page 892)

THE PEOPLES CHOICE
Behind US ALL
The Farmers Friend
MAN OF THE PEOPLE
INTEGRITY
EXPERIENCE
WEIR

Fancy Phrases
and PLAIN FACTS

FANCY phrases can make the "platform" of a health care prepayment plan very appealing.

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SAINT LOUIS
KANSAS CITY

News

Students of St. John's School of Nursing, Joplin, were addressed by **B. F. Wooldridge**, M.D., Joplin, at an annual junior-senior banquet in July.

Among directors of the Missouri State Chapter of the National Rehabilitation Association, recently formed, is **Harold Ridings**, M.D., Cape Girardeau.

The program of the Nevada Lions Club recently was a talk by **R. B. Wray**, M.D., Nevada, on "Poliomyelitis."

Among panelists at the recent meeting of the Mississippi Valley Medical Society in Chicago was **Claude J. Hunt**, M.D., Kansas City.

Recently installed president of UNICO, national Italian-American service organization, is **D. M. Nigro**, M.D., Kansas City. The annual session was held in St. Paul on August 25.

The *St. Louis Globe-Democrat* of August 26 carried pictures and an article on "Neilson Family Has 3 Physicians at Home" which told of **Charles Hugh Neilson**, M.D., his son, **Arthur Wright Neilson, Sr.**, M.D., and **Arthur Wright Neilson, Jr.**, M.D.

Recently **Herman Wing**, M.D., St. Louis, was appointed representative of the jurisprudence section of the membership committee of the American Academy of Forensic Sciences. **Val B. Satterfield**, M.D., St. Louis, is president-elect of the Academy.

Speaker at an August Assembly Day of the Christian Women's Fellowship in Higbee was **Helen Yeager Thomas**, M.D., Columbia, who spoke on child welfare.

The Rotary Club of Columbia had as speaker at one of its recent meetings **Roscoe L. Pullen**, M.D., Columbia. He told of the advances of medicine in recent years.

At the fifth annual clinical meeting of the American College of Obstetricians and Gynecologists to be held in Chicago in November, **A. N. Arneson**, M.D., St. Louis, will serve as chairman from Missouri and **Clarence D. Davis**, M.D., Columbia, as vice chairman.

A cochairman of the local committee on arrangements for the American Society of Anesthesiologists meeting in Kansas City in October is **Louis Porter**, M.D., Kansas City.

The September radio program of the Buchanan County Medical Society was moderated by **John R. Forgrave**, M.D., St. Joseph. Panelists were **M. E. Grimes**, M.D.; **John R. McDaniel**, M.D.; **John L. Mothershead**, M.D., and **H. E. Petersen**, M.D. The topic was "Stomach Ache."

A talk on "The Role of Drugs in Psychosomatic Illness" was given by **S. W. Scorce**, M.D., Joplin, at a meeting of the Joplin Sertoma Club in Joplin recently.

ST. LOUIS GENERAL PRACTITIONERS TO PRESENT FALL REFRESHER COURSE

The St. Louis Academy of General Practice announces that the program for their 1956 Refresher Course, to be given by the faculty of the St. Louis University School of Medicine, will begin at 8:00 a.m. on Tuesday, October 2. Except for Thursday, October 25, the course will continue each Tuesday and Thursday through November 13.

All the lectures will be given in Classroom "A" of the Medical School building at 1402 South Grand Boulevard, except on November 6 and 8 when the demonstrations and auscultations will be held in a different location to be announced later. During the lecture sessions doctors may be reached by telephone at PRospect 1-7600, Station 396.

The Education Committee, working with Dr. James G. Janney, Jr., as coordinator for St. Louis University, has spent weeks of time in building a program which offers concise, timely and comprehensive postgraduate medical education. Twenty-four hours of Category I credit will be allowed American Academy of General Practice members for full attendance at this course.

The tuition fee is $25.00. All general practitioners are cordially invited to enroll in this course and are urged to mail in promptly the application blanks which were sent out recently with program announcements. Applications are to be sent to St. Louis Academy of General Practice, 4 North Eighth St., St. Louis 1, Mo.

DEATHS

Claridge, Ralph A., M.D., St. Louis, a graduate of Northwestern University Medical School, 1909; honor member of the St. Louis Medical Society; aged 70; died July 4.

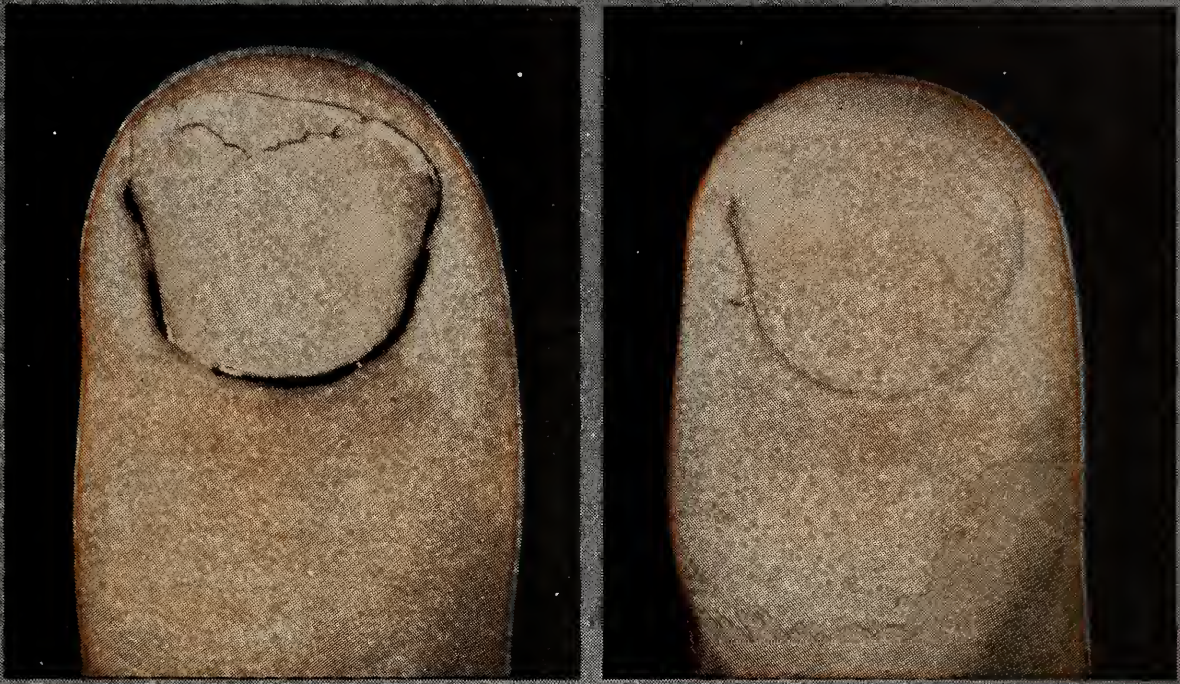
Carlton, Charles E., M.D., Stoutland, a graduate of the Kansas City Medical College, 1901; honor member of the Mid-Missouri Medical Society; aged 80; died August 2.

Thorn, Druery R., M.D., Kansas City, a graduate of Jefferson Medical College, 1921; member of the Jackson County Medical Society; aged 63; died August 12.

Neff, Robert L., M.D., Joplin, a graduate of the Kansas City Medical College, 1894; honor member of the Jasper County Medical Society; aged 86; died August 23.

Payne, Richard J., M.D., St. Louis, a graduate of St. Louis University School of Medicine, 1913; member of the St. Louis Medical Society; aged 68; died August 29.

KNOX Protein Previews



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In a recent study[1] that confirmed previous work[2] Knox Gelatine was used to treat 36 women with fragile, brittle, laminating fingernails. The response was most gratifying. Except for three patients who discontinued the therapy, three diabetics, and two women who had congenital deformities, the splitting ceased and all other patients were able to manicure their nails to a full point by the time the study ended.

Optimal dosage proved to be one envelope (7 grams) of Knox Gelatine administered daily for three months. Efficacy has not been established with lesser dosage. If you would like more complete details of this work, just use the coupon.

---

1. Rosenberg, S. and Oster, K. A., "Gelatine in the Treatment of Brittle Nails," *Conn. State Med. J.* **19**:171-179, March 1955.
2. Tyson, T. L., *J. Invest. Dermat.* **14**:323, May 1950.

Chas. B. Knox Gelatine Company, Inc.
Professional Service Dept. SJ-19
Johnstown, N. Y.

Please send me a reprint of the article by Rosenberg and Oster with illustrated color brochure.

YOUR NAME AND ADDRESS

Councilor District News

SECOND COUNCILOR DISTRICT

W. F. FRANCKA, HANNIBAL, COUNCILOR

Marion-Ralls-Shelby County Medical Society

A dinner meeting of the Marion-Ralls-Shelby County Medical Society was held at the Mark Twain Hotel in Hannibal on Thursday night, August 28.

The festivities of the evening began with a social hour followed by dinner and then an interesting and informative discussion of "Office Orthopedics" by Dr. Robert E. Funsch of St. Louis.

Sam T. Ellis, M.D., *Secretary*

FIFTH COUNCILOR DISTRICT

J. W. ALLEE, COLUMBIA, COUNCILOR

Audrain County Medical Society

The Audrain County Medical Society was called to order by the President, Dr. Glen Kallenbach, at 10:30 a.m., July 10, 1956.

The minutes and treasurer's report of the previous meeting were read and approved.

A motion was made by Dr. Lawrence Epple that the County Medical Society meet on the fourth Monday of each month, and that speakers would be procured that were approved for instructional purposes by the American Academy of General Practice, the meetings to be 7:00 p.m. dinner meetings in the Audrain Hospital cafeteria. Motion was seconded by Dr. Ernest Gantt and approved by a majority vote.

President, Dr. Glen Kallenbach, appointed a program committee composed of Dr. Ed Wallace, Dr. Thomas Dwyer and Dr. Lawrence Epple to procure program speakers.

It was decided to discontinue meetings during the months of July and August and resume in September.

The following doctors were present: Leonard L. Davis, M.D., Thomas L. Dwyer, M.D., Ernest S. Gantt, M.D., J. Frank Jolley, M.D., William H. Jolly, M.D., Glen P. Kallenbach, M.D., Harold K. Lankford, M.D., Harry F. O'Brien, M.D., Ed S. Wallace, M.D., Kathryn C. Epple, M.D., and Lawrence K. Epple, M.D.

As there was no further business, the meeting adjourned at 11:15 a.m.

Ed S. Wallace, M.D., *Secretary*

NINTH COUNCILOR DISTRICT

J. H. SUMMERS, LEBANON, COUNCILOR

Mid-Missouri Medical Society

The Annual Picnic of the Mid-Missouri Medical Society was held at the camp of Dr. and Mrs. E. A. Stricker near St. James, Sunday, July 22, beginning about 2:00 p.m.

Special guests invited to the picnic, this year, were as follows: Physicians and their families from Fort Leonard Wood Station Hospital and south Missouri, nurses from Phelps County Memorial Hospital, Wallace Memorial Hospital, Waynesville General Hospital and Fort Leonard Wood Hospital.

Swimming, boating, fishing and story-book telling were all added together to sharpen appetites for barbecued chicken and ham. The wives of the medical society members brought their favorite covered dish so that everyone was amply fed. The barbecued ham and chicken were compliments of Dr. and Mrs. E. A. Stricker. No one, in attendance, has been found, as yet, who did not have a most enjoyable time.

M. K. Underwood, M.D., *Secretary*

South Central Counties Medical Society

The South Central Counties Medical Society met for dinner Wednesday night, August 29, at the Aztec Club, east of Willow Springs, with the following members and visitors present: Drs. J. W. Wiles and Rollin H. Smith, West Plains; H. W. Miller, M. B. Perkins and L. E. Walker, Willow Springs; S. W. Connor, R. W. Denney, A. C. Ames and H. G. Frame, Mountain Grove; D. E. Tiffany, Mountain View; C. W. Cooper, Thayer, and John L. K. Tsang, Springfield, and the wives of several.

After dinner the ladies went home with Mrs. Perkins for the evening, and the doctors went to Dr. Perkins' office for the program. Dr. Wiles, the president, called the meeting to order, and the minutes of the last meeting were read and approved. The application for membership of D. E. Tiffany was reported on by the censors, and he was elected as a member. Dr. L. E. Walker presented his application for membership, which was referred to the censors and left over to the next meeting. The application of St. Francis Hospital of Mountain View for recognition was presented by Dr. Tiffany and it was voted to instruct the secretary to ask the Blue Cross that it be added to the list of Blue Cross Hospitals.

The meeting was then turned over to Dr. Tsang who made an interesting and instructive talk on quite a number of neurologic conditions of frequent occurrence in medical practice. Dr. Wiles expressed the thanks and appreciation of the Society to the speaker.

The Society adjourned to meet in Mountain View September 26.

A. C. Ames, M.D., *Secretary*

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From the Medical Schools

SAINT LOUIS UNIVERSITY

Appointments

Dr. J. Walter Burdette has been appointed Professor of Clinical Surgery and Director of the St. Louis University Surgical Service at Veterans Hospital effective September 1. Dr. Burdette came to the University from the University of Missouri School of Medicine where he served as Chairman of the Department from 1955 to 1956. He was associated with the Louisiana State University School of Medicine for nine years where he rose from an instructor to an associate professor of surgery. Dr. Burdette left this post in 1955. In 1953 Dr. Burdette was a visiting research professor at the Chester Beattie Research Institute affiliated with the Royal Cancer Hospital in London. He was awarded his A.B. degree from Baylor University, his A.M. degree and Ph.D. degree from the University of Texas and his M.D. degree from Yale. Dr. Burdette is a member of numerous medical and scientific associations and societies and is certified in both general surgery and in thoracic surgery.

Dr. Karl G. Lark has been appointed instructor in microbiology effective September 1. Dr. Lark came to the University from the University of Geneva, Geneva, Switzerland, where he was a Fellow of the National Foundation of Infantile Paralysis from 1955 to 1956. He was a Fellow of the American Cancer Society at the Statens Serum Institut in Copenhagen, Denmark, from 1953 to 1955. Dr. Lark was awarded his Ph.B. degree from the University of Chicago College and his Ph.D. degree from New York University.

Dr. Norman E. Melechen has been appointed instructor in microbiology effective September 1. Dr. Melechen came to the University from Carnegie Institute of Washington, where he was an associate investigator in the Department of Genetics. He was awarded his B.A. degree from Columbia College in 1944 and his Ph.D. from the University of Pennsylvania in 1954. Dr. Melechen was an assistant instructor in the Zoology Department at the University of Pennsylvania from 1952 to 1953 and a Research Fellow, Johnson Foundation for Medical Physics at the same University from 1953 to 1954.

Dr. Oscar Marin, San Martin, has been appointed assistant in neurology and psychiatry. Dr. Marin came to the University from the Institute of Neurosurgery in Santiago, where he worked as a neurologist in the Neurological Department, and also served as clinical neurologist in the Catholic University Hospital. Born in Antofagasta, Chile, Dr. Marin studied medicine at the Medical School of the University of Chile. In 1953 he was appointed as Chief of the Department of Clinical Neurophysiology at the Institute of Neurosurgery of the University of Chile. In 1954 he studied at the EEG Laboratory of Marseille, France, and at the Neurophysiological Laboratory of the Medical School of the University of Marseille. In 1955 he studied Clinical Neurology and Neuropsychiatry at the Salpetriere Hospital of Paris and at St. Anne Hospital in Paris. At the end of his stay in Paris he presented a thesis to the faculty of medicine of the University of Paris and was awarded a degree of Assistant Etranger de la Faculte de Medecine de Paris.

Dr. Ralph A. Kinsella, Jr., associate professor of internal medicine has been appointed Chairman of the Faculty Seminar for the current academic year.

Dr. John Pfaff, Jr., has been appointed Director of Laboratories at Firmin Desloge Hospital. He assumed his duties on July 1.

Grants

A grant of $13,817.00 by the United States Public Health Service has been awarded to Dr. Kermit Christensen, professor of anatomy for research in blood vessels effective July 1.

A grant of $24,881.00 by the United States Public Health Service has been awarded to Dr. Thomas Thale, executive secretary of the section on psychiatry for the University's Mental Health Undergraduate Training Program. The renewal became effective July 1.

The Saint Louis Heart Association has awarded two grants to the University effective July 1. A grant of $4,711.50 was awarded to Dr. C. Rollins Hanlon, director of the Department of Surgery for research in "Surgical Correction of Transposition of the Great Vessels." A grant of $5,967.00 has been awarded to Dr. William F. Geber, assistant professor of physiology for a research project titled "Periodic Blood Pressure Variations in the Dog."

Mid-America Jubilee

Sixty senior medical students participated in the Mid-America Jubilee located on the Mississippi River Front during the month of September. Two St. Louis University medical students volunteered their services daily to the St. Louis Medical Society's display on Medical Education located in the Health Building on the fairgrounds. The students demonstrated scientific equipment and answered questions on medical education directed to them by the public.

The School of Medicine loaned the Educational Electron Cardioscope from its Heart Sound Laboratory, and the Heart-Lung Machine (Bubble Oxygenator) from its Surgery Department for the display. Dr. Kermit Christensen, professor of anatomy, served as Chairman of Jubilee arrangements at the Saint Louis University School of Medicine.

Student participants included: P. A. Van Thullenar, J. M. Gabala, R. P. Clancy, J. W. McMahon, J. J. Collins, Jr., J. A. Moriarty, R. W. Tatkow, J. E. Belew, C. G. Clower, Jr., J. A. Murphy, A. S. Genest, W. L. Wagner, Jr., F. Ionata, A. E. Daly, P. T. Moran, C S. Li, D. E. Frein, J. L. DesRosiers, J. A. Ronan, M. H. Seifert, J. D. Bouhasin, W. Wagner, V. A. Codiga, R. B. Scarff, Jr., A. H. Biscan, P. R. Caffrey, R. O. Craig, R. M. Applebaum, D. A. Miller, L. E. Potvin, J. D. Callahan, W. M. Murphy, R. K. Danis, G. E. Humphrey, C. B. Wolf, G. A. Hagen, T. F. Statti, T. J. Regimbal, Jr., P. J. Citrone, P. A. Byrne, W. W. Kaminsky, Jr., J. H. Winter, R. W. Hellweg, P. B. Chretien, R. M. Woolsey, J. M. Leahy, Jr., F. E. Hunleth, E. C. St. George, Jr., J. C. Scott, Jr., R. V. Jungwirth, A. J. Martens, D. F. May, C. L. Olson, D. T. Phillips, R. R.

ECG
Nomenclature and Derivation of All Presently-Used Le
Answers to Basic Questions About Standardization
The Personal Side of Metabolism Testing
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WASHINGTON UNIVERSITY

Lecture

Dr. Edward S. West, professor and head of the department of biological chemistry at the University of Oregon School of Medicine, delivered the first annual Philip A. Shaffer lecture at Washington University School of Medicine on September 20. His topic was "The Production and Utilization of Ketone Bodies in Animal Tissues." The lecture was given in honor of Dr. Shaffer who is distinguished service professor emeritus and lecturer in biological chemistry. He is a former dean of the Medical School. Before the lecture a portrait of Dr. Shaffer was presented to the School. Dr. Evarts A. Graham, emeritus Bixby professor of surgery, made the presentation, and Dean Oliver H. Lowry accepted the portrait for the School.

Congress

Dr. E. V. Cowdry, director of the Wernse Laboratory of Cancer Research at Washington University School of Medicine, was chosen as one of six honorary presidents of the First Pan American Congress of Gerontology held September 15 to 22 in Mexico City. He was the only one so designated from the United States. Dr. Cowdry also served as chairman of the North American Committee of Cooperation for the Congress. Dr. William B. Kountz, assistant professor of medicine, also served on this committee and presented several papers at the Congress. Other faculty members who participated in the Congress included: Philip G. Ackerman, research associate in gerontology; Dr. W. P. Covell, associate professor of otolaryngology and of anatomy; Dr. J. E. Kirk, associate professor of medicine and director of research in the Division of Gerontology; Martin Byrbye, assistant in medicine and research assistant in gerontology; Valentina Suntzeff, research associate in cancer; and Dr. Wilbur A. Thomas, assistant professor of pathology.

Travel

Dr. S. Richard Silverman, professor of audiology and director of the Central Institute for the Deaf, and Dr. Ira J. Hirsh, research associate in audiology in otolaryngology and research associate at the Institute recently delivered a series of lectures at the opening of the Venezuelan Institute of Speech and Hearing in Caracas. The lectures were given for one week and sponsored by the Institute, the Central University of Venezuela and the Ear, Nose and Throat Society of Venezuela. The lectures were given at the university and supplemented by demonstrations of equipment and technic at the institute.

New Faculty Members

Among new faculty members at the School of Medicine are Dr. Guillermo Cabrera, instructor in biochemistry in medicine, who formerly taught biochemistry at the London Hospital Medical School; Dr. Robert C. Donaldson, instructor in surgery; and Dr. Nadys F. Kenikov, instructor in pathology.

Grant

Research fellowships were granted to nine nursing students by the U. S. Public Health Service for work during the 1956-1957 academic year at the School of Nursing, Director Louise Knapp announced recently. Recipients included Misses Carolyn Baker, Patricia Brown, Betty Finger, Jean Lagerstrom, Marion Ludwig, Irene Pollert, Anna Shannon, Ora Ruth Wallis and Mrs. Mary K. Langdon.

Jubilee

Sixty medical students from Washington University helped demonstrate equipment at the St. Louis Medical Society exhibit for the Mid-America Jubilee held at the river front in St. Louis during September. Students who assisted for the first part of the month included: Oliver J. Biederman, John Headrick, Robert Belliveau, Robert Glass, Robert Utiger, Ray Schultze, Mrs. Mary N. Harkness, Robert Lindemeyer, Gerald Kenner, Jewell Osterholm, Zachary Apfel, Kenneth Smith, Miss Barbara Nancy Voege, Richard Aach, Charles Geppert, William W. Taylor, Theodore Gasteyer, Richard Oglesby, William Richards, Mickey Gulick, Richard Bryant, Edward Forgotson, Robert Wilkinson, Edwin Merz, Kenneth Gentsch, Gene Stunkle, John Semmelmeyer, James McClenahan, Samuel Kurohara, Ralph Graff, Richard Thompson, Tom Apostolopoulos and Robert Bowles. Among the pieces of equipment at the exhibit was an artificial kidney from Washington University School of Medicine and Barnes Hospital.

UNIVERSITY OF MISSOURI

Trips and Talks

Dr. Frank B. Engley, Jr., professor and chairman of the Department of Microbiology, visited the Lederle Laboratories in Pearl River, New York, on August 16 and 17.

Dr. Herbert S. Goldberg, assistant professor in Microbiology, spent some time with colleagues at the Department of Bacteriology, New York University, College of Dentistry during the week of August 1. Dr. Goldberg also visited Charles Pfizer and Company, antibiotic manufacturers, in New York during that week. In addition, Dr. Goldberg spent some time in the laboratories of Microbiology at the new Albert Einstein College of Medicine visiting with Dr. E. J. Hehre in New York.

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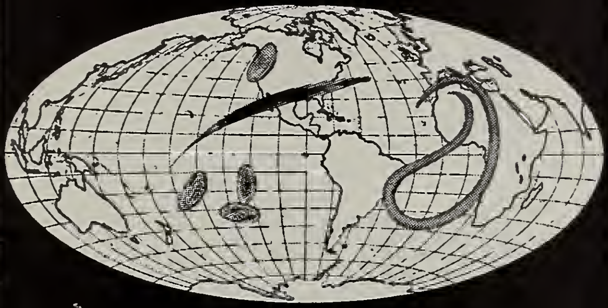

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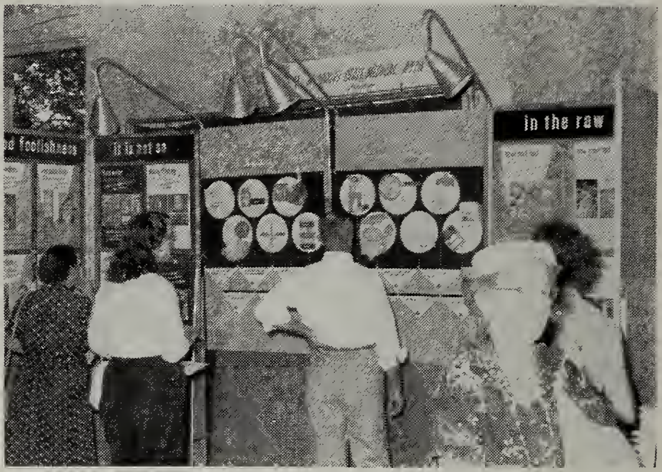
Musings of the Field Secretary

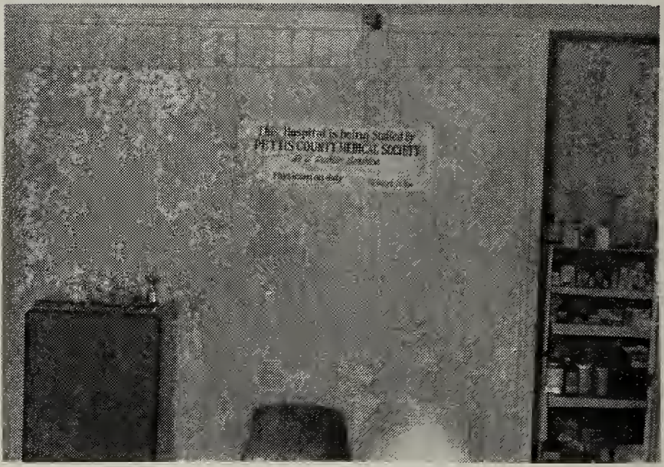
(Continued from page 882)

Complaints from those seeking the doctor's services at the Fair centered mostly around blistered feet, cuts, bruises and allergies.

Most doctors seem to have little interest in the Missouri State Fair as evidenced by attendance or exhibits presented. This year, however, three examples of doctors' exhibits came to attention. Don H. Silsby, M.D., Springfield, exhibited a splendid collection of U.S. postage stamps which he has been collecting since about 1936. C. G. Stauffacher, M.D., Sedalia, displayed his blue ribbon collection of topical stamps pertaining to medicine. Hugh Walker, M.D., Clinton, had prize entrees in the horse show.



The exhibit was lent by the A.M.A.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The dispensary was manned by the Pettis County Medical Society members.

The 1956 Annual Meeting of the Missouri Academy of General Practice, to be held October 24 and 25 at the Governor Hotel, Jefferson City, has the earmarks of "top billing." Details of the program appear elsewhere in this issue. Why not give it a good look?

The 3rd Annual Southeast Missouri Cancer Conference will be held in Cape Girardeau, Thursday afternoon and evening, October 4. The Cape Girardeau County Medical Society, as host to this Conference, extends to all members of the Missouri State Medical Association an invitation to attend. An outstanding program has been arranged.

TUBERCULOSIS ABSTRACT

TB ON SKID ROW

For many years the blackest spot on the map of tuberculosis morbidity and mortality in Philadelphia has been "skid row." In 1953-54 one of these census tracts had a tuberculosis mortality rate of 469 per 100,000 compared to a rate of 20.1 for the city as a whole. The reported active case rate was 1120.4 compared to 79.8 for the whole city.

Knowledge of such a startling tuberculosis problem stimulated the Philadelphia Tuberculosis and Health Association, with other voluntary agencies, to conduct organized x-ray surveys among skid row inhabitants as far back as 1952. The prevalence of serious tuberculosis was almost unbelievable, but relatively few homeless men would accept an x-ray. The most elaborate promotional schemes, ranging from individual "buttonholing" on the street to offering free Sunday dinners, could not overcome the evasiveness of skid row men.

The hope of reaching a larger number of these men in surroundings more conducive to cooperation led to the plan to x-ray the nightly yield of drunks, vagrants, and peace disturbers held for magistrate's court at a city police station. A proposal to conduct such a survey on a demonstration basis was laid before the chairman of the Committee on Public Health of the City Council, who enthusiastically carried the plan to the Mayor and the Police Department for approval.

Earlier experience with homeless men served to emphasize the importance of a well-organized survey procedure, with prompt and aggressive follow-up. In previous surveys between the time of the film taking and the time when results became available, a large number of the men had dropped out of sight. An address given by a person one day, if not incorrect to begin with, was likely to be of no value in locating that person a few days later.

A further complication was that one-night hotels do not permit the men to remain in the rooms during the day when public health nurses ordinarily would come to interview them. In the evening, when the men might be "at home," the nurses were not available to seek them out.

Facing such obstacles, the survey team put much effort into pre-survey consultations among staff members from the Police Department, the City Divisions of Tuberculosis Control and Public Health Nursing, the local health districts and the voluntary agencies.

A portable photofluorographic unit of the association was set up at the police station and the men who had been picked up by the police during the night were offered a chest x-ray at the time of discharge after a magistrate's hearing in the morning. With few exceptions, the men who had been in custody took the magistrate's offer more as an order than an invitation. Almost all who were discharged during the period of the survey were x-rayed.

Films were developed on the day of exposure, except on week-ends, and were read the next morning before the regular work day of the city public health nurses. Positive reports were 'phoned to the health center in the appropriate district, enabling the nurses

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Issued by the National Tuberculosis Association
By Donald J. Ottenberg, M.D., *Bulletin, National Tuberculosis Association*, June, 1956.

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Bumbalo, T. S., Gustina, F. J., and Oleksiak, R. E.: J. Pediat. 44:386, 1954.

White, R. H. R., and Standen, O. D.: Brit. M. J. 2:755, 1953.

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Brown, H. W.: J. Pediat. 45:419, 1954.

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to visit the address of the person with suspicious findings the same day, which except on weekends was the day after the film had been taken. Cases read as advanced active tuberculosis were reported directly to the Division of Tuberculosis Control so that hospital beds could be made available immediately.

Persons not located by the public health nurses during the day were reported at the end of the day to two male investigators who continued the search at night.

In the six-week period 1,750 persons were x-rayed. Tuberculosis was read in 151 films, or 8.6 per cent. Among the 151 films read "tuberculosis" were 37 labelled active from the film appearance alone. This diagnosis was confirmed in the clinic in 20 of the 37. Another diagnosis was reported for 6, while no reports were available on the remaining 11. Twelve additional active cases were diagnosed among persons whose survey films had been read "tuberculosis of indeterminate activity," giving 32 proved active cases altogether, a rate of 18 per 1,000. Twenty-two of the 32 had not previously been known to the Health Department, and at least half of the 10 previously known were not under supervision at the time of the survey.

It seems likely that there was more active tuberculosis in the group than the rate indicates, since no follow-up diagnoses were available on 30 per cent of those who films were read "probably active" and 58 per cent of those read "activity indeterminate." The yield of active disease is at least 18 times greater than one would expect in the population at large and is in general agreement with reports from other metropolitan areas.

Although 136 cases read tuberculosis were referred for further study, 63 or 46 per cent failed to appear and 47 of these 63 men could not be located. Within 24 hours they had returned to the anonymity of skid row. Apparently they were devoid of any permanent ties that might help to trace them from one day to the next.

The survey resulted in hospital treatment for 11 men and brought or returned 50 others to clinic supervision. This more than justified the expenditure of money and effort. At the same time the results pointed up the peculiar problems presented by a skid row population and the need for special techniques, particularly in follow-up.

Those who have thought of homeless men as vagabonds who use skid row only as a temporary stopping place were surprised to discover that 30 per cent of the men were born in Philadelphia and 78 per cent consider Philadelphia as a place of permanent residence. Of those who listed Philadelphia as their permanent home, 97 per cent had been in the city over six months and three out of four had been there over 10 years.

It is clear that the skid row problem goes beyond the consequences of any one disease, even such a serious disease as tuberculosis. Skid row exists because the men on it are incapable of making an adequate life adjustment. They are properly to be considered among the mentally or emotionally ill. Alcoholism touches most of them, although no categorical answer can be given to the question whether the men are homeless because they drink or drink because they are homeless.

There is no easy solution to the problem, and some authorities believe it is impossible to control tuberculosis on skid row without controlling skid row itself. Some of the new ideas under consideration in Philadelphia are a separate alcoholic's court with an associated center for treatment and rehabilitation, municipal public shelters to replace flop houses, certification of lodging houses, and tuberculosis hostels to supply after-sanatorium lodging for homeless men.

One of the greatest needs is to understand the men on skid row better than we do. It is surprising how little we know about the psychogenesis of skid row personality and the social forces that tend to perpetuate it. The need to study the problem in a systematic way is urgent.

In the meantime, case-finding surveys in police stations, prisons, alcoholic rehabilitation centers and the like will give the richest yield of new significant cases of tuberculosis. While such programs inevitably meet frustrations and neither rid our large cities of skid rows nor skid rows of tuberculosis, they undoubtedly reduce the pool of infected persons and thereby help to control tuberculosis in our cities.

Language is not an abstract construction of the learned or of dictionary makers, but is something arising out of the work, needs, ties, joys, affections, tastes, of long generations of humanity, and has its bases broad and low, close to the ground.—*Walt Whitman.*

In human relations a little language goes farther than a little of almost anything else. Whereas one language now often makes a wall, two can make a gate.—*Walter V. Kaulfers.*

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BOOK REVIEWS

Professionalizer, Traditionalizer, and Utilizer by Robert W. Habenstein, Ph.D., and Edwin A. Christ, M.A., Institute for Research in the Social Sciences, University of Missouri, Columbia, Mo. 1955. Price $2.00.

This 163 page report summarizes an eighteen month study of general duty nurses in non-metropolitan hospitals in central Missouri, conducted under the sponsorship of the American Nurses' Association.

Part One represents the more interpretative effort and proceeds with a combination of description and analysis. Part Two consists of a quantitative analysis and description of the occupational characteristics of professional (registered) and nonprofessional (practical) nurses in twenty-four general hospitals.

Interesting observations as to the relevance of size, physical arrangements and form of hospital control are adduced, and the indigenous growth of nursing personnel "home guards" in hospitals is discussed at some length. Possibly the basic contribution of the study lies in the identification of three types of nurse roles, or orientations. The "professionalizer" takes her cues from the medical practitioner and medical science in its more technical and clinical dimensions. The "traditionalizer," on the other hand remains wedded to the nursing ideal set by Florence Nightingale with its emphasis on bedside care of the patient. The "utilizer," who is in nursing service, but hardly of it, merely performs her duties routinely without any particular ideals, tradition or self involvement.

These three types are likely to exist in any and all hospitals, often in mixed and diluted form. That each has a certain legitimacy—least for the "utilizer"—is a social fact of importance to medical practitioners and administrators since each has consequences for the way the particular nurse will look at herself and her work.

It is to the authors' credit that they have been able to deal intelligently with the important problem of human motivation at work without being forced to pitch their analysis at the level of personal and individualistic factors. The study, consequently, has a generality to its findings that makes them useful and relevant to the better understanding of nurses' work everywhere. C. E. L.

Should the Patient Know the Truth? A Response of Physicians, Nurses, Clergymen and Lawyers. Edited by Samuel Standard, M.D., and Helmuth Nathan, M.D. Springer Publishing Company, Inc., New York. 1955. Price $3.00 Hard Cover, $2.00 Soft Cover.

Twenty-four members of the medical, nursing, legal and clerical professions give their answer to this question. All of them believe that the patient should know the truth. These viewpoints are certainly interesting, and yet they do not present an infallible guide to the physician's conduct.

In general, all the contributors favor telling the patient the truth, but most of them with some reservations. Some believe that kindness takes precedence. Standard points out that "Truth becomes an instrument of therapy, the answer is 'yes' if the knowledge of the truth will improve the patient's prospect of recovery, the answer is 'no,' if the knowledge of the truth will diminish his prospects of recovery."

Wangensteen feels that cancer patients should be told the unequivocal truth. Cave cites two cases that summarize the doctor's dilemma. I think that most physicians have had similar experiences. One difficulty is that of prognosis. From my own practice, I am sure that it is wrong to tell the patient that he will die soon as this seems an almost certain method to insure the patient's longevity. Unfortunately, the doctor who so prognosticates, usually dies in the interim. The Catholic authors are for an elastic truth except that the dying patient be given opportunity for the last sacraments.

Davidoff sums up, "I believe that the patient should be told what he wants to be told; and, what he wants to be told becomes apparent to the perceptive doctor in the patient's manner of asking for information."

B. S. P.

The Prevention of Disease in Everyday Practice. By Isadore Givner, M.D., Associate Clinical Professor of Ophthalmology, New York University Postgraduate Medical School; Director of Ophthalmology, New York City Hospital; and Maurice Bruger, M.D., Associate Professor of Medicine, New York University Postgraduate Medical School; Attending Physician and Director, Department of Clinical Pathology, University Hospital; and Contributors. With 50 Text Illustrations, Frontispiece in Color. C. V. Mosby Company, St. Louis. 1955. Price $20.00.

This is a most surprising book. From its title one would expect a book from a public health viewpoint, with emphasis on sanitary engineering, vector control and the like.

However, this is a volume of thirty-seven individual monographs, written by clinicians in various specialties. Sometimes the prevention idea seems to lose out and vigorous treatment is then recommended.

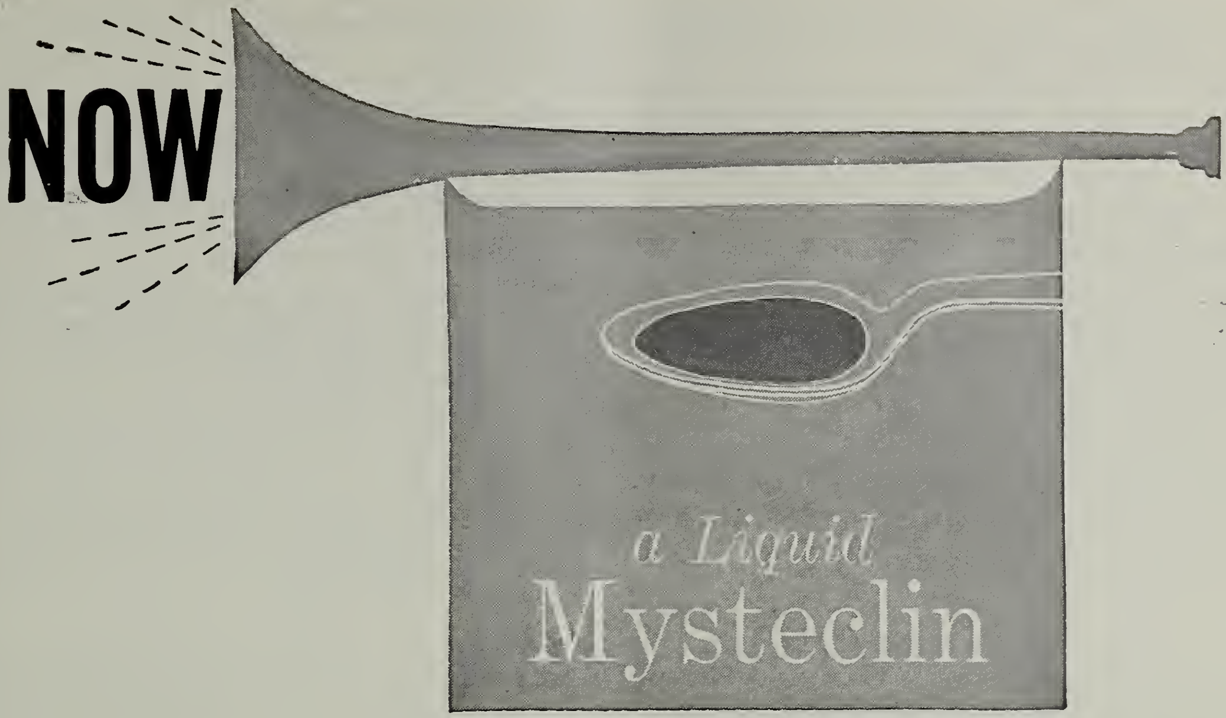
There is a great deal of information in this book, much of which might have been left in the textbooks of the individual specialties. For instance, the average practitioner will not be inclined to do a prophylactic peripheral iridectomy to save the good eye in a case of unilateral glaucoma.

This reviewer is impressed by the excellence of the individual monographs but astounded that they should be brought together under this title and, for that reason, there is doubt that the book will have much reader or sales appeal. B. S. P.

Public Relations in Medical Practice. By James E. Bryan, Administrator, Medical-Surgical Plan of New Jersey; Executive Secretary, New York County Medical Society; Executive Officer, the Medical Society of New Jersey; Chairman, Medical Society Executives Conference. Foreword by Louis H. Bauer, M.D., Secretary-General, The World Medical Association; Chairman of the Board, United Medical Service of New York; President, American Medical Education Foundation; Past President, American Medical Association. The Williams & Wilkins Company, Baltimore. 1954. Price $5.00.

This is a well written and easily read book about the relationship of the physician to his patients, his employees, his colleagues, his hospital and to his community. These subjects are covered quite thoroughly.

The author has had many years of experience in observing physicians because of more than twenty



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This is an excellent book on the subject of public relations in medical practice and should be read by every physician. H. C.

Office Procedures. By Paul Williamson, M.D. W. B. Saunders Company, Philadelphia. 1955. Price $12.50.

This is an exceedingly interesting book. It is complete and shows many ingenious and inexpensive devices that the general practitioner can use. In addition, throughout the entire book there are warnings on when to refer a patient to a specialist, and when to obtain longer teaching help, as in the section on roentgenology and cardiography. Interestingly enough, it also includes a section on psychologic testing. The book reveals both the ingenuity and the humility of the author; it is a worthwhile addition to a physician's library, especially the man beginning his practice. R. B.

Textbook of Physiology. Edited by John F. Fulton, M.D., Sterling Professor of the History of Medicine, Yale University School of Medicine. With the Collaboration of Donald H. Barron; William D. Blake; John R. Brobeck; George R. Cowgill; Paul F. Fenton; Thomas R. Forbes; Samuel Gelfan; David I. Hitchcock; Hebbel E. Hoff; David P. C. Lloyd; Theodore C. Ruch; Jane A. Russell. Seventeenth Edition—Illustrated. W. B. Saunders Company, Philadelphia. 1955. $13.50.

This textbook should be a welcome addition for the student of medicine, be he undergraduate or postgraduate. The general plan of this new 17th edition is the cooperation of various contributors, who preserve the historic interest of the first edition by Dr. Howell.

The accumulation and development of knowledge with the collaboration of twelve other authorities, is proceeding at a rapid rate, and the task of keeping abreast of current factual information is indeed difficult, because the basic outlook of physiology remains the solid foundation of the medical sciences.

The knowledge of bodily functions has advanced in many sections and a few new chapters have been added as well as much new material. The "principles of nervous activity," the clarity of this complex section has been stated clearly and comprehendibly. The new chapter on "acetylcholine and energy transformations in nerve cells" is most enlightening. The section on "body fluids and kidney function," and on "respiration," more than compensate the value of the book. A tremendous amount of valuable material on "cardiac and endocrine physiology" is useful and essential to the continuing development and ability to practice medicine effectively.

In a volume of this size detailed analysis is difficult; however, the writer attempts to trace the gradual evolution of present knowledge based on many parts of the subjects. Sifting the evidence, he emphasizes conclusions evidenced by experiment, research and observation.

A final analysis gives a further knowledge of the fundamental problems of metabolism, electrolyte and body fluids, as well as nutrition, that are of important character in physiology. V. H. B.

Basic Surgical Skills. A Manual With Appropriate Exercises, by Robert Tauber, M.D., F.A.C.S., Assistant Professor of Gynecology and Obstetrics, the Graduate School of Medicine, University of Pennsylvania; Senior Attending Physician in Obstetrics and Gynecology, the Albert Einstein Medical Center; Chief in Gynecology of the Kensington Hospital; Diplomate of the American Board of Obstetrics and Gynecology. Illustrated. W. B. Saunders Company, Philadelphia. 1955. Price $3.75.

This monograph shows in a step by step fashion many of the fundamental skills and technics that must be mastered by those working and assisting in the operation room suite.

Dr. Tauber describes an ingenious training board on which tying and suturing technic may be developed and practiced daily. The methods are clearly described and well illustrated so that all may readily follow and understand what he is trying to get across.

This book is highly recommended for medical students and interns. S. M. R.

Ciba Foundation Symposium on the Kidney. Arranged jointly with the Renal Association. Editor for the Renal Association, A. A. G. Lewis, M.D. Editor for the Ciba Foundation, G. E. W. Wolstenholme, O.B.E., M.A., M.B., B.Ch. Assisted by Joan Etherington. With 125 Illustrations. Little, Brown and Company, Boston. 1954. Price $6.75.

This symposium covers the structures and functional relationships in the kidney. The regulation of acid base balance, tubular functions (other than acid base balance), general problems of electrolyte excretion and renal share in the volume of body fluid. There were about thirty-five outstanding research workers and authorities of kidney disease that participated in this symposium. These men came from all over the world.

There is information on the structural relationships in the kidney and the influence of the kidney on electrolyte balance that one might have a difficult time finding in other books on the subject. However, the material is not arranged or summarized in such a fashion that would be of great value to the person primarily interested in the clinical aspects of the kidney disease. It is not recommended for those who are interested in a good clinical book on the subject. It, however, will be of great value to those who are primarily doing research work involving the kidney or electrolytes. H. C. W.

Peripheral Vascular Diseases. Second Edition. Edgar V. Allen, M.D., Section of Medicine, Mayo Clinic; Professor of Medicine, Mayo Foundation, Graduate School, University of Minnesota; Diplomate of the American Board of Internal Medicine; Nelson W. Barker, M.D., Section of Medicine, Mayo Clinic; Professor of Medicine, Mayo Foundation, Graduate School, University of Minnesota; Diplomate of the American Board of Internal Medicine; and Edgar A. Hines, M.D., Section of Medicine, Mayo Clinic; Professor of Medicine, Mayo Foundation, Graduate School, University of Minnesota. With Associates in the Mayo Clinic and Mayo Foundation. 316 Illustrations, 7 in Color. W. B. Saunders Company, Philadelphia. 1955. Price $13.00.

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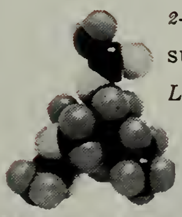

THE MILTOWN MOLECULE

of considerable value to internist, surgeon, general practitioner, orthopedist and neurosurgeon, since patients with peripheral vascular diseases most frequently present themselves for their first examination before physicians in these categories. This second edition represents considerable improvement over the first, being mindful that the first edition, from necessity, had to be of rather encyclopedic nature because it was the first book of any stature covering diseases of the peripheral blood vessels. There has been a reduction in the amount of material presented, which means that essential points to be brought out are readily available. Some new chapters have been added, on arteriography, neurovascular reflex dystrophy of the extremities, the newer surgical procedures for varicose veins and the most recent advances in technics for surgical treatment of diseases and injuries of large arteries.

In the chapter dealing with history and examining patients who have or are suspected of having peripheral vascular diseases, there is a careful analytic approach employing a most fruitful scheme of interrogating as well as in interpreting answers which likely will be obtained. Likewise, important clues to be sought for in conducting physical examinations referable to circulatory disorders of extremities are described and cardinal signs amply illustrated, some in color. Technic of obtaining thermometric and plethysmographic measurements under ideal conditions and the interpretation as applied to individual cases is presented briefly.

At the beginning of several chapters a picture and brief historical note are presented about the individual who is generally recognized as being the pioneer in advancing that knowledge. For example at the outset of the chapter dealing with arterio-spastic states appears the picture of Maurice Raynaud, together with a brief historical note covering high points in his life as well as reference to his original thesis dealing with the classical syndrome which bears his name. Heading the chapter on scleroderma of course, the historical note and accompanying photograph concern Sir Jonathan Hutchinson; and a chapter on thromboangiitis obliterans is preceded by a picture and notes pertaining to Leo Buerger, while the chapter on aneurysms shows the picture of William Stewart Halstead, and refers to his early life and to the surgical technics which he devised. Succeeding chapters deal with diseases of the arteries, of the lymph vessels, of the capillaries and of the veins. The chapter on surgical treatment is the concluding chapter and his sixteen subdivisions covering many aspects of this important part in the treatment of peripheral vascular diseases. Some of these subsections deal with sympathectomy, amputations, embolectomy, arteriovenous fistulae and skin grafting.

I consider that this recent edition concerning circulatory disorders of the extremities, as brought up to date by the members of the vascular section of the Mayo Clinic, constitutes a monumental advance.

F. S. M.

A Textbook of Medicine. Edited by Russell L. Cecil, M.D., Professor of Clinical Medicine Emeritus, Cornell University, New York; Robert F. Loeb, M.D., D. Hon. Causa., LL.D., Bard Professor of Medicine, Columbia University, New York. Associate Editors, Alexander B. Gutman, M.D., Professor of Medicine, Columbia University, New York; Walsh McDermott, M.D., Livingston Farrand Professor of Public Health and Preventive Medicine, Cornell University, New York; Harold G. Wolff, M.D., Professor of Medicine (Neurology), Cornell University, New York. Ninth Edition, Illustrated. W. B. Saunders Company, Philadelphia. 1955. Price $15.00.

This volume represents the ninth edition of this popular classic textbook. This popularity is well deserved since this single book of medicine is almost encyclopedic in scope. The authors reflect the many strides in medicine which have taken place during the last four years, and have combined the physiologic and biochemical aspects of disease with the actual description of the disease. The two column page makes for ease of reading. The size of the type is adequate.

Thirty-nine subjects not covered in previous editions have been added. Fifty-eight old sections have been rewritten by new contributors. Some sections have been transferred to a more appropriate grouping. Altogether there are 172 contributors, which include the outstanding authorities in the fields covered. Four hundred sixty-three pages of material have been devoted to the discussion of the infectious diseases, which are covered with considerable detail, better than one fourth of the textbook, a situation which has characterized previous editions of this textbook and attests to the importance attached to these subjects by the editors. References are included at the end of each subject, and the indexing is exceptionally complete.

This is a fine textbook for medical students and for the busy practitioner that needs up-to-date, well detailed information available in his private library.

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Curiosa et Trivia

William B. McCunniff, M.D.

Jean Baptiste Lully, known as the father of orchestral conducting, was probably the first L.O.D. casualty in his specialty. He died at 54 of an infection initiated by pounding himself on the little toe with a heavy staff he used for conducting.

The 1956 Olympic gold medal winner in figure skating is a pre-med student. Tenley Allbright is the daughter of Newton, Massachusetts, physician, Dr. Hollis L. Allbright.

Our favorite columnist, Bill Vaughan, reports in "Starbeams" that "Just 150 years ago the stethoscope was invented, and a good thing, too. Without it draped around his neck we wouldn't have half as much confidence in the doctor in the cigarette ad."

Scalp hair grows at the rate of 0.35 mm. per day (less than ½ inch per month), and has a life span of about two years. After a scalp hair falls out, it takes about seventeen weeks for the hair follicle to begin producing a new hair.

Glaucoma has blinded more than forty thousand American citizens.

Of approximately 92,000 persons accidentally killed in the U. S. in 1955, only about 1,500 were due to major disasters—accidents in which five or more persons are killed. Almost 39,000 were due to motor vehicle accidents; public (other than motor vehicle) accidents killed about 16,000, industrial injuries 14,000 and home accidents 27,000.

A physician and his wife christened their daughter Anesthesia in honor of the fact that she was the first child delivered under chloroform. The anesthetic was administered by Sir James Y. Simpson.

The average American housewife walks six miles a day while her R.N. counterpart is logging about ten miles.

Missing and presumed dead is the City of London Truss Society for the Relief of the Ruptured Poor. This unique group was founded in 1807 and apparently thrived at least until 1888.

Four thousand years ago, the Code of Hammurabi stipulated that if a doctor opened an abscess and preserved the sight of the patient, he would receive ten shekels of silver. However, if the patient lost his sight or his life, the doctor was to be punished by having his hands cut off. And you think your Tissue Committee is tough!

A bat swung by New York Yankee, Bill Skowron, has been clocked at 120 miles per hour.

The average life of an eyelash is three months; of an eyebrow hair three weeks.

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Missouri Medicine in Review

Leo H. Pollock, M.D.

FORTY YEARS AGO

Henry Ford's practical charities move one to a forgetting of the visionary and wholly impractical peace cruise to Europe. Mr. Ford was then trying out a theory. It is when he does his philanthropic work along lines which have been tried and well approved that he does the most for humanity, and the most for himself in world estimation.

Cape Girardeau County Medical Society held its regular meeting September 11, at Commercial Club Room, Cape Girardeau, with the president, Dr. G. B. Schulz presiding. One of the members reported that a life insurance company was cutting its fee for examination from $5 to $3, and that the company was trying to get members to do this work. He cautioned the men to be honorable and uphold the schedule.

The Franklin County Medical Society met in regular session in Union, August 25, 1916. The meeting was called to order by temporary chairman, Dr. C. F. Briegleb. I. M. Owens was instructive and interesting and was enjoyed by all. The doctor recommends the use of ichthyol in pertussis and bronchitis and has had much success in the management of these diseases by the use of its agent.

Lord Beaconsfield once said: "The public health is the foundation on which reposes the happiness of the people and the power of the country, and the care of the public health is the first duty of a statesman." The last quarterly report of our state board of health contained a letter from a rural school teacher in which she describes the bad conditions of the privies furnished by the school board. The population of Lafayette County is between 31,000 and 32,000, and there is not a hospital of any kind in the whole county.

The sanitary survey of Clay County has just been completed by the U. S. Public Health Service with a grade of 100 per cent.

The death of Dr. Wm. S. Allee left vacant the office of treasurer of the Association. The chairman has appointed Dr. Gail D. Allee, Lamar, son of Dr. W. S. Allee, treasurer for the unexpired term. Dr. Gail D. Allee is a graduate of the Beaumont Hospital Medical College, 1898, and has been an active and loyal member of the Association ever since he was graduated and licensed to practice.

Dr. C. R. Woodson, St. Joseph, has been elected president of the Missouri Valley Medical Society.

Dr. John Simon, former Health Commissioner of St. Louis, is recovering from an illness that required a surgical operation.

Dr. J. M. Christy, Butler, has been appointed a member of the Butler Board of Health to take the place made vacant by the resignation of Dr. E. N. Chastain.

Dr. F. Reder, St. Louis, was elected first vice president of the American Association of Obstetricians and Gynecologists at their annual meeting held at Indianapolis, September 25-27.

Dr. G. O. Cuppaidge, Moberly, Major in the Medical Corps of the Fourth Missouri Regiment National Guard, has returned home for a brief visit. He has been stationed at Laredo, Texas, ever since the Missouri troops have been on the border and will return.

TWENTY-FIVE YEARS AGO

In commemoration of the fiftieth anniversary of the inauguration of the Crede's method for the prevention of ophthalmia neonatorum the Robert Johnston prizes for the years 1930 and 1931 have been consolidated and will be celebrated at a joint meeting of the St. Louis Medical Society and the Ophthalmic Section of the Society, October 20.

The Cass County Medical Society met September 10 with Dr. and Mrs. A. H. Baldwin, Pleasant Hill, at the clubhouse on Baldwin Lake. Dinner was served by the Auxiliary at six o'clock.

The Long Trek. Around the World With Camera and Rifle. By Richard L. Sutton, M.D., Sc.D., LL.D., F.R.S. (Edin.), Fellow of the Royal Geographical Society; Member of the French Geographical Society; Professor of Dermatology, University of Kansas. With more than two hundred illustrations from photographs made by the author and by Richard L. Sutton, Jr., A.M., B.Sc., M.D., Fellow of the Royal Geographical Society. St. Louis: The C. V. Mosby Company. 1930. Price $5. The "Long Trek" is not Dr. Sutton's first story of his big game hunting. In 1924 he told about "An African Holiday" and in 1926 followed some "Tiger Trails in Southern Africa."

The twenty-fifth annual session of the Southern Medical Association will convene in New Orleans for three days November 18 to 20. The program has been arranged by the president, Dr. Felix J. Underwood, Jackson, Mississippi.

Clinics were held in the St. Joseph's and the Missouri Methodist hospitals, St. Joseph, October 1, under the auspices of the St. Joseph Clinical Society as a feature of the twenty-fourth annual convention of the Missouri Tuberculosis Association.

(Continued on page 936)

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Missouri Academy of General Practice

J. H. Trolinger, M.D.

New Component Chapter, Missouri Academy of General Practice

A meeting of twenty general practitioners from St. Joseph and environs was held at the home of Dr. Scott Benson in St. Joseph on Tuesday night, September 11, 1956. The purpose of the meeting was to complete the details for application to the Missouri Academy of General Practice for a Component Academy Chapter charter.

A proposed Constitution and By-Laws was drawn up and approved.

A Petition for the local charter was signed by those present and with the proposed Constitution and By-Laws will be submitted to the Board of Directors of the Missouri Academy of General Practice.

Officers elected for the contemplated new Chapter, to be known as the Northwest Missouri Chapter of the Missouri Academy of General Practice, are: Forrest C. Long, M.D., Savannah, President; Claude S. Grant, M.D., St. Joseph, Vice President, and Sharon E. Waggoner, M.D., St. Joseph, Secretary-Treasurer.

The counties to be included in the Chapter are: Buchanan, Andrew, Holt, Atchison, Nodaway, Gentry, Worth, Clinton and Platte.

Doctors attending the meeting outside of St. Joseph were: Drs. Forrest Long and Warren Baker of Savannah; Dr. Elvin Imes of Maryville; Dr. John Mabrey of Plattsburg and Dr. Frank Matteson of Grant City.

An initial meeting of this group was held in St. Joseph in July of 1956. Dr. T. L. Dwyer, Mexico, Missouri, President of the Missouri Academy of General Practice, met with them at that time and offered suggestions as to procedure for securing a local Chapter charter.

The formation of such component chapters affords tangible evidence of the salutary growth and development of the Missouri Academy of General Practice. So many of the objectives of the AAGP, such as regular regional postgraduate training programs, are more readily and successfully realized when worked out on the local level. Many problems peculiar to the general practitioner, such as hospital and intra-professional relations, are virtually insoluble on any but an individual and regional approach. Smaller, more closely united units afford not only opportunities of more effectively realizing the aims of the AAGP, but also provide the means of more adequate and equitable representation of the G.P. within the County Medical Society and Councilor District affairs.

Missouri Medicine in Review

(Continued from page 934)

A fund was recently established in England as a tribute to Sir Ronald Ross for his revolutionizing discovery of the relation of the mosquito to the transmission of malaria to man and as a means of making his remaining years easy. As an army surgeon working in India, Sir Ronald proved that malaria is transmitted by the Anopheles mosquito. Sir Ronald received the Nobel prize for medicine in 1902 and was made a K.C.B. in 1911.

This summer Dr. Norman Bruce Carson died in his 87th year. He had been one of the leading surgeons of St. Louis and the Mississippi Valley for many years. His connection with the St. Louis Medical College began in 1881 as an assistant in surgery and he advanced through all the grades until in 1899 he became the professor of clinical surgery and continued his work in the medical school until his retirement.

The quarterly meeting of the Five-County Medical Group of Southeast Missouri, consisting of Butler, Dunklin, New Madrid, Pemiscot and Stoddard counties, was held at Essex, September 22, as guests of the Stoddard County Medical Society. A most excellent banquet was served by the ladies of Essex in the basement of the high school.

The regular monthly meeting of the Nodaway County Medical Society was held in the St. Francis Hospital, Maryville, Friday, October 9. The president, Dr. K. C. Cummins, Maryville, called the meeting to order. Only a small number of members were in attendance; many of the physicians of the county were attending the World Series or a local football game.

TEN YEARS AGO

The Southeast Missouri Medical Association held its seventieth annual meeting at Cape Girardeau on October 9. Appearing on the program were Drs. S. M. Bailey, Malden; D. B. Elrod, O. J. Giblon and Paul B. Nussbaum, Cape Girardeau; Albert Estes, Jackson; Mr. Raymond McIntyre, St. Louis, and Dr. A. C. Magill, Cape Girardeau.

The Caldwell-Livingston, Grundy-Daviess, Carroll and Linn County Medical societies held a meeting at Chillicothe at the Strand Hotel on September 24. The Caldwell-Livingston County Medical Society acted as host at the meeting. The Presi-

(Continued on page 940)

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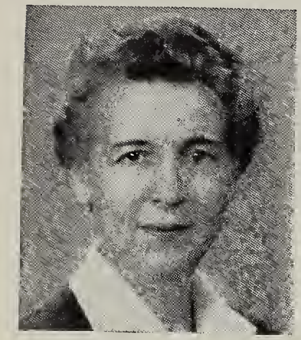

Because a previous issue has carried the proposed agenda for the Annual Fall Board Meeting of the Auxiliary, it is a great pleasure to report the culmination and fulfilment of a fine meeting. This was evidenced by the enthusiasm of the nearly one hundred members and guests attending.

The tightly packed program began at 2:00 o'clock with Dr. E. C. Chiasson, a practicing psychiatrist of Columbia, speaking on the needs of proper facilities for mentally disturbed children. Dr. Chiasson said that mental rehabilitation is slow, and many children are often classed as delinquents instead of emotionally disturbed. This is the phase of mental health the auxiliaries are to study this year. We later previewed a film on this subject called "The Child Behind the Wall."

Dr. Royce Bohrer, Jefferson City, ably reviewed the growing needs of the nation's eight-two medical schools and complimented the Auxiliary for their financial contribution to the A.M.E.F. Our State Chairman, Mrs. Maxmilian Weitman, has sent out a novel letter obtained from the Ohio Auxiliary on a fund raising project called "A Quiet Evening at Home," which the county auxiliaries are to use.

It was a real privilege to hear Mrs. Jean Houston, Director of Women's Activities in Civil Defense, from Jefferson City, pointing out the need for preparedness in the event of disaster. Miss Nina Larkin of Red Cross spoke of work being done in setting up Home Nursing classes throughout the state. Many auxiliaries are starting these courses.

Mrs. Richard Sutter, our past president, ably pointed up the need for auxiliaries to expand their recruitment program to take in the other careers in the field of health services. Mrs. W. C. Francka, told in detail how their comparatively new auxiliary had set up a Future Nurses Club in the high school in Hannibal.

Tom O'Brien spoke to the members on some of the probable legislation which may come up on the national level and urged us to be sure to register and vote and to see that our families did likewise.

The meeting was geared to the new national theme "Health Is Our Greatest Heritage" and I believe was inspirational to everyone attending. Dean Roscoe Pullen conducted a tour for about seventy-five members through the fabulous new hospital and medical school. Missouri can be justly proud of this new school and hospital.

Mrs. Armand D. Fries and I will have attended a Conference of Presidents and Presidents-elect from every state and all the A.M.A. Auxiliary Board October 1 to 3 in Chicago, when this comes off the press. This same week I shall have one day at home to prepare for a trip to Kansas City to speak to the Jackson County Auxiliary at a Tea on October 5, help set up plans for the convention next April, and in my spare time to play in the Heart of America golf tournament that just happens to be going on at this time.

With all the myriad of duties this job of being president entails, it would be well to adopt this thought from John Wesley:

"Do all the good you can,
By all the means you can,
In all the ways you can,
In all the places you can,
At all the times you can,
To all the people you can,
As long as you ever can."

and I think this pretty accurately describes any Auxiliary member who is loyal and devoted to the cause.

Missouri Medicine in Review

(Continued from page 936)

dent of the Caldwell-Livingston County Medical Society, Dr. G. W. Carpenter, presided.

The Linn County Medical Society met at the office of Dr. Roy Haley, Brookfield, on September 5. The meeting was preceded by a dinner. The following were present at the meeting: Drs. Haley, S. T. Brownfield, M. H. Rhoades, Guy A. Koon, R. W. Bohnsack, J. H. Lucas, Brookfield; C. A. Campbell, B. B. Hurst, Marceline; E. F. Weir, Meadville; J. P. Cantwell, Bucklin.

The Barry-Lawrence-Stone County Medical Society had its first regular fall meeting with a dinner at the Roaring River State Park Hotel, Cassville, September 7. Fifteen members from the tri-county area attended. In addition to the regular members, guests included Dr. Wallis Smith, Springfield, District Councilor, and Dr. D. L. Yancey, Springfield.

The Phelps-Crawford-Dent-Pulaski County Medical Society met in Rolla on August 30 with twenty-five members present. Meeting new physicians and discussing medical problems were enjoyed by all while a nice meal was being served at the Pennant Restaurant.

Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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Vol. 53 November, 1956 Number 11

Hypertension

Precaution in Treatment

ROBERT PAINE, M.D., *St. Louis*

Today the blood pressure of most hypertensive patients can be significantly reduced, provided available agents are used in sufficient quantity. This represents an achievement of the first magnitude, but the suppression of pressure, while admirable, is not achieved without risk and is, at times, distinctly undesirable. I should like to consider the dangers and drawbacks inherent in this exciting advance in medicine. Some of these hazards of hypertensive therapy are due to the side effects of the therapeutic agents, while others are due to the induced state of normotension itself.

Probably the most liberally used agents are the Rauwolfia alkaloids, particularly reserpine. These substances owe their popularity to their ease of administration, and to the fact that their mild hypotensive action is fitted to the most common type of hypertension—the benign neurogenic, often labile, form.

Because these agents are mildly hypotensive, there has perhaps been a tendency to use them freely and without close observation. Such a practice is not to be recommended. Their depressant effect upon the blood pressure may not appear for from three to six days and may not reach the maximum for from three to ten weeks. Occasional examinations during the initial period are therefore essential to determine the effectiveness of the alkaloid and are of value in alleviating and preventing side effects produced by the medication.

It has proven helpful to forewarn patients of the symptoms likely to be experienced and thereby to allay subsequent apprehension and resentment. Severe nasal congestion and headaches and flushing are not rare and can be eliminated by antihistamine preparations and by administering the larger doses of the alkaloid at bedtime so that immediate effects may pass unnoted.

Another mild, and often welcome, effect of Rauwolfia is a slight stimulation to bowel activity. This may result in a desirable freedom from constipation but may even reach the point of diarrhea. If antihistamines do not control this difficulty, a reduction in dosage may be required.

Of greater potential importance than these nuisance effects is the occasional marked fluid retention provoked by Rauwolfia or reserpine. Retention has occurred promptly on initiating therapy and has reached the point of edema and dyspnea within one week. This phenomenon has been noted with small doses and without blood pressure depression. It has subsided on omission of the drug. The confusion that could arise with the development of swollen ankles and dyspnea could easily lead to an erroneous impression of myocardial failure. Only awareness of this phenomenon would lead to implication of Rauwolfia instead of administration of digitalis and diuretics.

Any gain in weight is usually undesirable to hypertensive patients. A true gain in body weight due to slowing the tempo of the patient's physical activities may be provoked by Rauwolfia unless caloric intake is controlled proportionately. If these individuals are not required to weigh at regular intervals a subtle increase in weight may cancel the vascular benefits obtained by blood pressure suppression.

Undue emotional depression is perhaps the greatest hazard of Rauwolfia therapy. An occasional patient complains of weakness, anxiety and depression. This has taken the mild form of wornout gloominess in the late afternoon or recurrent nightmares, but its severe form drug-induced depression has led to suicide. It would be well to reduce or discontinue intake of the drug whenever a pa-

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Presented in a panel on "What's New in Medicine" at the 98th Annual Session, Missouri State Medical Association, St. Louis, April 8-11, 1956.

tient shows evidence of incipient depression since there is no antidote and many weeks or months may pass before the disturbance subsides. It has been a distressing experience to see these individuals persist in their unhappy, anxious, depressed state for weeks after the drug has been stopped. A number of them have required major psychiatric help before recovery was accomplished. It has been said that Rauwolfia is actually the most dangerous of the hypertensive remedies rather than the mildest, for it is the only one that has literally killed patients.

Rauwolfia produces a slowing of the heart. In an occasional instance this sinus bradycardia is followed by the release of aberrant pacemakers productive of extrasystoles and even auricular fibrillation. It would be well to avoid these agents in patients prone to paroxysms of arrhythmia and to heed the report of palpitation in patients already on one of these preparations. In a number of instances, the paroxysms of arrhythmia have been productive of alarming episodes of chest pain, dyspnea or near-shock. In some instances the true arrhythmic mechanism of these attacks has been discovered only on close observation by doctor or patient and subsequent reduction or elimination of medication has abolished the attacks.

The bradycardia of Rauwolfia may distort the guideposts of simultaneous digitalis therapy and lead to an inadequate administration of the drug. One must therefore be influenced less by the heart rate and occurrence of extrasystoles and more by the evidences of compensation and other signs of digitalis excess when giving digitalis to a patient who is already receiving Rauwolfia.

APRESOLINE

When hypertension is resistant to these milder agents, apresoline is often added to the regimen. This drug acts in a number of ways to lower pressure; one is by impairing the action of histaminase. As a result histamine is less rapidly destroyed and its physiologic actions become more evident, particularly the peripheral vasodilatation. While this is desirable in lowering peripheral resistance, a number of undesirable actions appear as a consequence of augmented histamine action. Headaches have been produced or aggravated in a third of apresoline-treated patients; flushing, excessive lacrimation, anorexia and nausea have been almost as common. Perhaps as a result of histamine-provoked hyperacidity a rare case of peptic ulcer has been aggravated to the point of hemorrhage.

One solution to the problem presented by these side-effects of apresoline is the simultaneous use of an antihistamine. Another is the combined use of apresoline and hexamethonium.

As blood pressure is lowered by apresoline, cardiac output is increased and, as a result, on occasion, cardiac work is increased despite the diminution of pressure. The increased cardiac action is frequently recognized by patients as palpitation. The undesirable combination of decreased coronary blood pressure and increased myocardial demands has occurred in a significant number of individuals who have developed, or have had aggravated, angina pectoris while taking the drug. In an occasional patient the degree of coronary insufficiency induced has been sufficient to precipitate infarction. It is therefore of great importance to be aware of these apresoline effects and to give the drug in small initial doses and to increase the dose only under careful observation. It would be unwise, even in small dosage, in the face of increasing coronary insufficiency to attempt apresoline therapy. Should circumstances appear to justify use of apresoline in the presence of defective coronary circulation, dilator drugs may add some degree of insurance against myocardial ischemia. Penterythrotylnitrate (peritrate) 10 or 20 mg. before meals and at bedtime has been effective in this role.

Apresoline therapy carries the threat of other side effects which are less obvious in their mechanism but are nonetheless of significance. In some 5 to 10 per cent of patients, arthritis resembling rheumatoid arthritis has appeared, usually in association with abnormalities of liver function. Other manifestations of this syndrome have been fever, skin rashes, hematuria, albuminuria, anemia, leukopenia, lymphadenopathy and splenomegaly. An elevation of plasma globulin has been detected in half of the cases. These signs and symptoms are reminiscent of the disturbances seen in disseminated lupus erythematosus. Indeed, lupus cells have been recognized in the blood of some of these patients.

It is worthy of note that all, or nearly all, of the cases developing this complex have become normotensive before the side effects appeared. Most patients had been under therapy for longer than four months and some for as long as two years before troubles began. It would seem wise to discontinue apresoline therapy when the lupus syndrome is recognized and to control blood pressure with other agents.

The hexamethonium drugs and their relatives are probably the most vigorous blood depressants yet available. These agents, by blockading autonomic ganglia, are productive of a medical sympathectomy. In addition, parasympathetic pathways are interrupted by its ganglionic action. As a result, these agents are capable of producing a number of unpleasant effects. Constipation and dryness of the mouth are frequent complaints which tend to diminish as therapy is continued. Blurring of vision may become a serious disadvantage but it, too, seems to be less troublesome with time. Heartburn, nausea and anorexia are provoked in a number of patients. While these gastrointestinal effects are unpleasant, the slowing of intestinal motility is undesirable for other reasons. Absorption of hexamethonium compounds is augmented by slowed intestinal passage and markedly increased blood levels of these agents may accumulate with the vicious production of increasing effects. Constipation is therefore to be combatted vigorously in patients ingesting hexamethonium ions. Saline cathartics, and not bulk or oil laxatives, are required.

In its extreme form, ganglionic blockade by these agents produces a paralytic ileus which can be a matter of great seriousness. It particularly is a threat in patients known to have a defect productive of intestinal or gastric obstruction, and the drugs should be used with caution, if at all, in such patients.

Urinary retention similarly can become an acute problem if these drugs are given in the presence of incipient prostatic obstruction. Once again, close observation and care are required if these drugs are to be used with safety.

Other obstructive symptoms occasionally seen are otitis media, due to eustachian obstruction, and parotitis due to salivary duct interference.

Hexamethonium ions are excreted by the kidney. The presence of azotemia therefore carries the threat of excessive drug retention. If these substances are given to patients with impaired renal function, one must be especially watchful for evidences of excessive drug actions and be prepared to stop or reduce the rate of ingestion.

A curious syndrome has appeared, usually in the presence of uremia, and most often in Negro men with malignant hypertension. The patients have developed an extreme tachypnea, with respiratory rates of 60 per minute or more. Strangely, these patients have not appeared orthopneic but instead have been less dyspneic when lying flat. This has proved to be a lethal process. At postmortem the lungs have been found to have acute interstitial fibrosis. How this is brought about by hexamethonium is not known. Nonetheless, one would be wise to observe closely patients with malignant hypertension, particularly if they are Negro males. No counter therapy is known to be effective once this syndrome has appeared—only the discontinuance of therapy at the first suspicion can prevent its fatal outcome.

While these ions are depressants of blood pressure, their action is a particularly labile one with wide swings in blood pressure responses. Their action is, in addition, quite powerful; capable of lowering blood pressure abruptly and to pressures far below those to which the patient is accustomed. Hypotensive episodes are especially postural and it is necessary to warn patients of the possibility of weakness, lightheadedness and fainting, and to advise them to sit or lie down immediately if they feel such symptoms coming on. Some patients have found these episodes to be more of a problem when the drug is taken with food—perhaps absorption is more rapid then.

It is wise, therefore, to record the blood pressure of patients both when they are lying down and when they are standing. A remarkable postural hypotension is noted in most patients and serious overdosage can be avoided only by measuring blood pressure when sitting or standing.

While syncope and weakness are troubles enough, hypotensive episodes can be of much greater danger potentially. Particularly in the presence of arteriosclerotic coronary or cerebral or renal vessels incapable of dilatation, a decrease in perfusion pressure may so curtail flow as to lead to cerebral or coronary ischemia or impairment of renal function.

It has been found helpful in using the powerful agent to teach the patient to take his own blood pressure and to increase or decrease each dose of drug according to a prearranged scale, relating dose to blood pressure level. In this way the dangers of inadequate therapy on the one hand and unrecognized hypotension on the other can be more nearly avoided.

Because there are risks inherent in the administration of each of the hypotensive agents a significant diastolic hypertension must be present to justify their use. One is tempted to treat arteriosclerotic patients who have systolic elevation without abnormal diastolic pressures. While the sedative effect of Rauwolfia preparations might be desirable in nervous arteriosclerotic subjects, other drugs are available which do not carry their significant hazards. It has been my experience that this arteriosclerotic group of patients, with systolic blood pressure in the range of 180 to 210, and diastolic blood pressure 80 to 95, has been particularly prone to develop undesirable reactions to the Rauwolfia preparations. The occurrence of troublesome arrhythmias has been especially prominent among them.

The application of more powerful depressants to sclerotic vascular systems in the presence of normal diastolic pressures is asking for trouble. To be sure, the pressure can be reduced, but it may well fall below a level necessary to maintain perfusion through narrow, stiffened vessels, and ischemia and occlusion may result. The ganglionic blocking agents productive of abrupt fluctuations in arterial pressure are potentially the most dangerous in this respect, but apresoline also may on occasion precipitate serious localized ischemia.

3720 Washington Ave.

Maternal Welfare

Report of the Committee

JOSEPH M. KREBS, M.D., *St. Louis*

SINCE 1950, a committee on Maternal Welfare has actively engaged in the analysis of maternal deaths as they occur throughout the State of Missouri. Each year for the last several years a member of this committee has presented the committee's report before this Association. It is my privilege to present to you the committee's report for the fiscal year 1955, which includes all maternal deaths occurring from November 1, 1954, through October 31, 1955.

For the sake of clarity it may be wise to interject several definitions. A maternal death is considered one occurring in any woman who is now or has been pregnant within the last six months. Maternal deaths can be divided into obstetric deaths and nonobstetric deaths. A nonobstetric death is one occurring in a pregnant woman which has no connection whatsoever with the pregnant state. For example, a pregnant woman crosses the street and is run down and killed by a motor vehicle, or a pregnant woman is shot to death. Another example of a nonobstetric death would be an acute bulbar poliomyelitis occurring in a pregnant woman. An obstetric death is a death occurring during pregnancy, labor, delivery or at any time during the immediate six months postpartum period which would not have occurred had the patient not been pregnant.

The committees from the Kansas City Gynecological Society and the St. Louis Gynecological Society have reviewed fifty-two maternal deaths occurring in the State of Missouri under the care of regular doctors of medicine. In three of these cases the information pertaining to the death was so meager and scanty that it could not be decided whether the deaths were obstetric or nonobstetric. In ten cases the deaths were definitely nonobstetrical in nature, which leaves a remainder of thirty-nine obstetric deaths to be reported.

The ten cases of nonobstetric deaths were variously distributed among three cases of brain tumor, including a glioma of the cerebellum, an ependymoma of the cerebellum and a blastoma multiforme. There was one ruptured congenital aneurysm of the brain; one case of spinal bulbar poliomyelitis; one case of multiple infarcts of the lung, the result of a generalized phlebothrombosis; one case of focal myocarditis, nonspecific; one case of myoma of the atrium of the heart producing a ball valve effect; one generalized metastatic melanosarcoma, and one case of ulcerative colitis with perforation and generalized peritonitis.

TABLE 1

MATERNAL DEATHS STUDIED

Unknown Cause	3
Nonobstetric Deaths	10
Obstetric Deaths	39
Total	52

The total actual figures of live births for the State of Missouri for 1955 will not be available until sometime in July. It is estimated, however, that there will be some 97,000 live births. This is quite similar to the figure definitely established for the year 1954. During that year, doctors of medicine delivered something over 85,000 live babies. Therefore, if this same figure is used in estimating the maternal mortality statistics, there would be a gross figure of 6.1 deaths per 10,000 live births. Such a figure is well within the national average, and represents a slight improvement over the published figure of 6.5 by the National Bureau of Vital Sta-

TABLE 2

DISTRIBUTION OF NONOBSTETRIC DEATHS

Brain Tumors	
Glioma Cerebellum	1
Ependymoma Cerebellum	1
Blastoma Multiforme	1
Congenital Aneurysm of the Brain	1
Spinal Bulbar Poliomyelitis	1
Multiple Infarcts of the Lung	1
Focal Myocarditis	1
Myoma of the Atrium	1
Melanosarcoma	1
Ulcerative Colitis	1
Total	10

TABLE 3

DISTRIBUTION OF OBSTETRIC DEATHS

Unknown Classification	1
Anaphylactoid Reaction to Pituitrin	1
Pulmonary Embolism	1
Sepsis	
Abortion With Tetanus	1
Puerperal Sepsis	1
Cardiac Disease	2
Anesthesia	4
Toxemia	7
Hemorrhage	21
Total	39

Presented as a part of the Symposium on Obstetrics at the 98th Annual Session of the Missouri State Medical Association, St. Louis, April 8-11, 1956.

tistics for the year 1953. These represent the latest published figures available.

In the obstetric deaths there was one case of anaphylactoid reaction to pituitrin. Another case is classified as cause of death unknown. This patient died suddenly shortly after the delivery of a normal infant. Heroic measures were instituted in an effort at revival and these failed and in spite of an autopsy a clear picture of the cause of death remains undecided. A single case of pulmonary embolism was noted in a multiparous individual who had delivered a stillborn at 5:00 o'clock in the morning but who felt well enough to get out of bed around 11:00 o'clock in the morning for lunch. Shortly after this time she experienced a sudden pain in the chest with shortness of breath and expired within four to five minutes.

There were two cases of sepsis, one involving a septic abortion with tetanus. The second was one in which a young primipara with a slightly contracted flat pelvis was allowed a long, drawn-out labor to no avail and finally was sectioned with a dead baby, and a generalized peritonitis followed.

Briefly, the two cases of cardiac disease were as follows. One was a young 22 year old woman, para ii, gravida iii, who had some vague history of previous cardiac disease but who had not cooperated in presenting herself for adequate prenatal care. Following a normal delivery she was discharged in good condition from the hospital, apparently the hospital staff being unaware of her cardiac history. Seven days later she returned to the hospital, dead on arrival. The coroner's anatomic diagnosis was congestive heart failure, postpartum. The second case was a 40 year old woman, para v, gravida vii, with a history of known cardiac disease who presented herself for prenatal care for the first time four days before her death at eight months gestation. At that time nothing but a mild dyspnea was noted. Four days later the patient entered the hospital in acute heart failure requiring oxygen, digitalis, morphine, atropine, aminophylline, and some fifty-three hours later was dead. A postmortem cesarean section delivered a stillborn infant.

The committees decided to ascribe four cases of maternal death as due to anesthesia. One case involved aspiration of vomitus resulting in asphyxiation. A second case of cardiac arrest was probably due to improper administration of ether anesthesia. A third was a case in which spinal anesthesia was given for a cesarean section by the surgeon. There was no one to watch the patient while the surgeon was busily engaged with the cesarean section. The fourth case was one in which two per cent xylocaine solution was used for a pudendal block. This patient developed convulsions, was given ether, developed laryngospasm as a result of this which caused anoxia, cerebral damage, coma and bronchopenumonia.

The seven deaths assigned to the category of toxemia were all due to eclampsia. Two of these deaths were the result of postpartum eclampsia; three were a fulminating type of eclampsia, and three were definitely associated with poor patient cooperation during the prenatal period. Earlier recognition of this complication with more adequate and intensive therapy could possibly have reduced the number of instances of deaths due to this condition.

Since twenty-one deaths were due to hemorrhage in the series of thirty-nine obstetric deaths, it was felt that it would be well to go into detail in the factors involved in the cause of 53 per cent of the obstetric deaths. Of these twenty-one cases, two were due to abruptio placenta, one was due to a ruptured ectopic pregnancy and a third was due to an incomplete abortion. Of the remaining seventeen cases, five were definitely due to rupture of the uterus. The remaining cases were all classed as postpartum hemorrhages. How many of these were due to rupture of the uterus could not be determined. It is interesting to note that fourteen of the twenty-one, or 66 per cent, were beyond 30 years of age. Eight of the twenty-one, or 38 per cent, were para vi or greater, making them grand multiparas.

TABLE 4

CLASSIFICATION OF HEMORRHAGE CASES

Abruptio Placenta	2
Ruptured Ectopic	1
Incomplete Abortion	1
Uterine Rupture	5
Postpartum Hemorrhage	12
Total	21

The definition of postpartum hemorrhage is a loss of 500 cc. or more of blood. It is usually estimated that a loss of 1,000 cc. is necessary before the patient manifests signs of shock. If the replacement of this 1,000 cc. of blood is considered a minimum replacement in the treatment of shock, then eleven of the twenty-one patients did not receive adequate blood replacement. Indeed, seven, or 33 per cent of these received no blood at all.

Checking on the time interval between the onset of the hemorrhage and the death of the patient the shortest time interval was found to be one and one half hours and the longest to be nine days. Ignoring these two extremes the average time interval was more than nine hours. This certainly should allow ample time for one to consider and institute all possible means in the treatment of shock due to hemorrhage.

In eight of the twenty-one cases laparotomies were performed. In three of these supracervical hysterectomies were done. One case had a complete hysterectomy; one had a hysterectomy, the extent of which is not specified, and one an exploratory. Two cases had cesarean sections.

Two of the patients were known to have had a previous anemia which was not treated; one had a hemoglobin of 8.5 gms., and the other a hemoglobin of 9.5 gms.

In two of the cases afibrinogenemia played a role in the mechanism of the fatal hemorrhage. One of these deaths was preceded by a more or less textbook picture of amniotic fluid embolism, one of three known causative factors of afibrinogenemia, and yet the diagnosis was not made until postmortem.

One patient died as a result of a transfusion reaction following 8 units of blood for the treatment of a ruptured uterus. The resultant oliguria and electrolyte imbalance was adequately treated for more than a week and the patient was well on the road to recovery when a second consultant noted that her hemoglobin level was below par and ordered another transfusion which caused the patient's demise. A second patient probably died of transfusion reaction but this cannot be proved.

With antibiotics reducing the number of sepsis cases and prenatal care aiding in the prevention of the toxemias, hemorrhage marches forth as the foremost killer of obstetric patients. Donnelly[1] points up this fact in an article in the February 1955 issue of the *Journal of the Iowa State Medical Society.*

Last year, Dr. Gerald Miller reported to this organization seventeen obstetric deaths out of forty-nine due to hemorrhage, for an incidence of 34 per cent. Dr. Wasserman, for the year 1953, in his annual report to this same group, presented nine cases of hemorrhage in twenty-two obstetric deaths or 40 per cent. Hemorrhage is the greatest cause of maternal deaths in other states of the union where maternal mortality committees are operating. In the *Journal of the American Medical Association,* **159**:1771, 1955, the Council on Medical Service presents a study in which the Maternal Mortality Committee[2] of the Minnesota State Medical Association states that an analysis of the cause of obstetric deaths showed that hemorrhage accounted for 28 per cent of the total and almost half of the obstetric deaths that were considered preventable. Hemorrhage accounted for more than three times as many preventable deaths as the next leading cause, toxemia. Some of the factors involved in the deaths due to hemorrhage include accouchement force, improper use of pituitary extracts during labor and inadequate and delayed replacement of blood. Charles A. Gordon,[3] of Brooklyn, was one of the first to call attention to the large number of maternal deaths that are caused by hemorrhage. In 1945, Dr. Gordon said: "The melancholy record of deaths from hemorrhage is proof that our securities against death from this cause are inadequate. The red torrent still inundates our statistics. Year after year it has been no different. . . ."

The field of activity for the reduction of maternal mortality is evident to all. The committee feels, and I am sure that most physicians giving any thought to the matter agree, that death due to hemorrhage should ideally be preventable. Therefore, if ideal circumstances had come into play, at least half of these mothers need not have died.

How can these deaths be prevented? First, there must be early recognition of hemorrhage. Too often loss of blood which is commonly associated with childbirth is taken for granted. This apparently is a condition where familiarity breeds contempt. One must ever be on the alert to be cognizant of the amount of blood loss. Obstetric hemorrhage need not be dramatic and gushing to be significant. Often, a slow, steady, but constant trickle of blood will in a period of time spell danger for that patient. It is obvious, of course, that without recognition of the diagnosis of hemorrhage, there will never be steps to treat it.

Once the diagnosis of obstetric hemorrhage is made one must seek to find the cause. This must include a careful visual and manual inspection of not only the external genitals and the vaginal tract but the cervix and uterus as well. Atony of the uterus is a commonly made diagnosis but, too often, one major cause for the inability of the uterus to contract is not looked for. This is rupture of the uterus and its diagnosis can be made only by careful intra-uterine exploration with the hand.

The committee has gone over the records of a few cases in which intra-uterine exploration of the uterine cavity was made not by one but several doctors and, yet, rupture of the uterus was not found. In such cases, one must constantly be on the alert for manifestations and signs of internal hemorrhage. These would include signs of peritoneal irritation with shoulder pain; or fullness in the cul-de-sac which may possibly be needled for diagnostic proof of blood, or a mass developing in either adnexae. Besides these signs, of course, will be signs of hemorrhage out of proportion to the amount of visible blood loss. With adequate treatment of the shock due to hemorrhage, these patients should be submitted to exploratory laparotomy.

Next in importance to early recognition of obstetric hemorrhage is early and adequate treatment. Plasma, plasma expanders and vasopressor substances, as well as fluids, should all be considered as only temporary measures preceding typing and cross-matching with adequate blood replacement.

Sometimes obstetric hemorrhage is so dramatic and massive that blood replacement must be massive. It is folly to depend upon a single transfusion by means of an intravenous needle in a patient who is thrashing about restlessly due to air hunger due to hemorrhage. Any patient manifesting shock due to obstetric hemorrhage should have at least one cut down on a vein and a cannula inserted which cannot be readily thrown out by the restless patient. Sometimes it may be necessary to have blood running in all extremities at one time and this perhaps under positive pressure. It is only by such early and heroic methods of treatment that many cases of irreversible shock will be prevented.

As soon as the diagnosis of shock due to hemorrhage is made, oxygen must be started in the form of either a mask or nasal catheter. This procedure is often overlooked and neglected in the haste to find the cause of the bleeding and in getting of intravenous infusions started. However, its early use will often prevent cerebral damage which causes the shock to become irreversible.

The banking of blood today has been greatly simplified and it would seem that any community large enough to provide a hospital for the care of the patient should also have the facilities to provide blood for emergency use. It is doubtful that blood donor lists represent an adequate means of treating true obstetric emergencies. While it is important to provide these banking facilities for the storing of blood for emergency use, it is deplorable when such facilities do exist and are not utilized to their full advantage.

634 N. Grand Ave.

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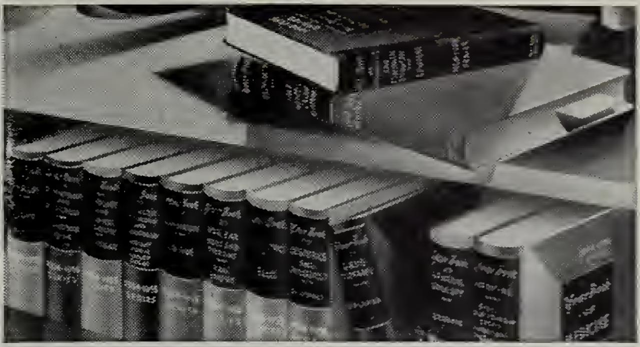

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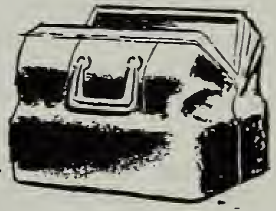

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Bleeding Based Upon Unrecognized Pregnancy

SAMUEL A. MONTELLO, M.D., *Kansas City*

ABNORMAL VAGINAL bleeding is a frequent problem for the clinician. The methods available for study are often crude as well as expensive. When abnormal bleeding occurs during the child-bearing period, the possibility of pregnancy always has to be considered. It is important to try to establish the diagnosis of pregnancy so that the safety of the patient may be guarded in the event of an ectopic gestation and to give therapy when it is indicated. Even under ideal circumstances, the mortality rate from ectopic pregnancy is appreciable, ranging from 1 to 4 per cent. While the laboratory is of help, all data that one may obtain is only of relative merit. Perhaps the most important factor in the correct approach to this problem is a keen clinical sense.

Important information is derived from a description of the character of any bleeding. This is compared to that of the patient's usual menstrual cycle. Blood which is darker than usual has taken a longer time to reach the vagina, either due to its source high in the reproductive tract, its slow rate of flow or it may have been partially blocked. A low viscosity of the blood would tend to indicate a high bleeding source rather than a low one. Blood which clots usually represents a more active flow or flow which is not part of an endometrial physiologic mechanism. An appreciable odor may indicate that a culture of bacteria has been established. The pathogenicity of such bacteria can be ascertained by the laboratory, not by any particular odor. The presence of entrapped blood and tissue must be suspected.

Associated symptoms may give pertinent information. Cramps usually indicate an effort by the uterus to expel blood or tissue. When the pain radiates prominently to the back, one frequently finds that the cervix is being dilated. This would also depend on the previous character of the cervix, the rapidity with which it is being dilated and the pliability of the material being extruded.

In attempting to make an early diagnosis of pregnancy, a good physical examination is essential. The classic Chadwick's and Hegar's signs may be absent until later in the pregnancy. Uterine enlargement may not be discernible. The first uterine change is probably a localized softening. This particular change, the Braun von Fernwald sign, was described to me by Dr. Raymond Schwegler. It is felt by gently palpating the posterior surface of the uterus. One obtains the impression of a distinct margin, almost a ridge, separating the usual firm uterus from a demarcated softer portion. Pistacek's sign would occur slightly later, represented by an asymmetric soft thickening of the uterus. These changes occur only with an intra-uterine pregnancy. In ectopic pregnancy the uterus may enlarge and become softened, mimicking an intra-uterine pregnancy. In rare situations in which the ectopic gestation survives, the uterus may enlarge to correlate with the duration of gestation for as long as two and one half months. The more usual situation in ectopic pregnancy is for the uterus to enlarge slowly, demonstrating a discrepancy between its size and the period of amenorrhea.

A unilateral mass is palpated in about one half of tubal pregnancies. With a period of amenorrhea of six weeks such a mass is rarely palpable unless there has been some bleeding into it. The presence of tenderness in the mass would depend largely on the presence of blood in it.

Pain on motion of the cervix becomes pronounced after the pelvic peritoneum becomes irritated by blood. As blood pools and irritates the cul-de-sac a feeling of bowel tenesmus is noted by the patient. It is this series of events that starts the patient to the toilet, in the textbook cases, where the patient faints. If blood drains to the posterior sub-diaphragmatic area, the phrenic nerve refers the pain to the shoulder. However, the most common symptom of ectopic pregnancy is pelvic pain.

Other findings of help are the changes noted in pulse and blood pressure. With a significant blood loss the pulse will increase before the blood pressure drops. The time sequence of these two signs depends on the compensatory ability of the peripheral vascular bed. The temperature, if elevated, is usually only slightly so. While the nausea and vomiting of pregnancy may be present, these frequently occur after the presence of the pregnancy is easily diagnosed. Persistent breast congestion, similar to that felt in the premenstrual phase of the cycle, is important and particularly if colostrum can be expressed in a patient who has never before been pregnant.

In order to understand better the bleeding of early pregnancy, a brief review of the progress of the ovum and its hormonal support would be in order. About six to ten days after fertilization the ovum implants itself in the endometrium. The developing trophoblast elaborates chorionic gonadotropin which causes the corpus luteum to persist as the corpus luteum of pregnancy. The increased elaboration of ovarian hormones, particularly progesterone, may account for the persistence of pre-

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Presented as a part of the Symposium on Obstetrics at the 98th Annual Session of the Missouri State Medical Association, St. Louis, April 8-11, 1956.

menstrual congestion, such as breast fullness and paresthesia. Chorionic gonadotropin production increases and after about three weeks, ten days after the first missed period, attains blood and urine levels high enough to turn the animal pregnancy tests positive. When the growth of the trophoblast becomes impaired, these pregnancy tests frequently become negative. In general, the pregnancy tests in all ectopic pregnancies is positive only half of the time, depending on the integrity of the trophoblast. It has also been noted that the levels of chorionic gonadotropin tend to be lower than average in the patient who later aborts.

The trophoblast burrows its way into the endometrium by enzymatic digestion. When a larger endometrial blood vessel is encountered in this dissolution, bleeding occurs. Hartman and Hertig have noted this in monkeys and refer to it as the "placental sign." This occurs during early implantation and often coincides with the usual time for the patient's menstrual period. This bleeding may be indistinguishable from menstrual blood or may be slightly brighter. Usually it is not enough to cause cramping. The volume is usually less than that of a menstrual period. The frequency of its occurrence is unknown. If one considers that about 20 per cent of pregnancies have some bleeding in the first trimester and half of these go on to abort, then the remainder would represent either a faltering of the trophoblast producing a tenuous hormonal balance, the early erosion into a blood vessel or, in a small proportion, some gynecologic cause. The differential diagnosis is not easy. It is important to rule out ectopic pregnancy. Here the vaginal bleeding usually represents an endometrial slough due to trophoblast failure. The pregnancy tests turn negative within twelve hours, but the sloughing endometrium bleeds for an average of twelve days, but may go on considerably longer.

Frequently ectopic pregnancy has to be distinguished from pelvic inflammatory disease. While the temperature, white count and sedimentation rate may be of help, the possible variations in these signs overlap so much that one cannot rely on them heavily. To expect a falling red count may also be misleading. When there has been a loss of blood the red count does not fall until there has been hemodilution, the compensatory effort to restore circulating volume. This may not be detectable for twenty-four hours, although the process begins almost immediately.

As the suspicion grows that an ectopic pregnancy is present, with the triad of pelvic pain, menstrual aberration and a unilateral mass, effort is made to establish a diagnosis. A simple procedure is culdocentesis, aspiration of the cul-de-sac. This has a degree of accuracy of more than 90 per cent. It is done with the patient in the dorso-lithotomy position. The vagina and cervix are cleaned and painted with an antiseptic solution. The cervix is stabilized in an upward and outward position. Without anesthesia a long No. 18 spinal needle is inserted in the midline of the posterior fornix 1 to 1½ cm. from the cervix and for a distance of 1½ to 2 cm. If aspiration with a clean syringe produces blood which does not clot in ten minutes, it is indicative of ectopic pregnancy. With a negative result, the procedure may be repeated once.

When blood is not drawn and the possibility of pregnancy remains, the patient is hospitalized and culdoscopy or colpotomy is planned under anesthesia. While culdoscopy is useful in finding unruptured ectopic pregnancy as well as for visualizing ovaries, tubes and posterior uterus, it is frequently disappointing; it requires skill and experience to be at all effective. It is usually more expeditious to do a colpotomy by incising the posterior fornix and peritoneum transversely between two Allis clamps for 2 or 3 cm. The tubes can then be palpated directly and visualized. The experienced vaginal surgeon frequently can deliver the tube into the incision and carry out salpingectomy. One should not elect colpotomy in those patients with a constricted upper vagina or where the adnexae are fixed. For many, exploratory laparotomy when indicated still represents the best and easiest approach. Needless to say, before any of these procedures is carried out, previous blood loss must be compensated.

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ROY A. WALTHER, JR., M.D., *St. Louis*

Few realize that the x-ray visualization of the female genital tract was first concerned with the uterine cavity. A year later, in 1914, Cary and Rubin, independently, used collargol to visualize the fallopian tubes. Since then increasing attempts have been made to improve contrast media for uterotubal visualization. Agents such as sodium bromide, thorium bromide and iodine solution were tried but were found to be too irritating.[19] In 1925 Sicard and Forestier reported on the use of iodized oils. These oily media were a great improvement; however, they too possessed certain disadvantages. Should the fallopian tubes be constricted, the oily media has been found to produce granulomata and total occlusion.[7, 10] It has been estimated that uterine cavity reflux occurs in about 5 per cent of all hysterosalpingographic examinations. This being true, oily media are potentially emboli producing.[2, 3, 5, 6, 9]

Because of the shortcomings of oily media, more and more examiners preferred a water-soluble contrast medium. Many gynecologists began to borrow the contrast media used by the urologists. However, these water-soluble media were found to be too dilute in contrast agent concentratiion and too fluid (nonviscous). Recently attempts have been made to increase the concentrations of the water-soluble contrast agents as well as increase the viscosity of the fluid media. Of these, one containing sodium acetrizoate[8] in an aqueous menstruum thickened with polyvinylpyrrolidone[16] has the properties of radio-opacity plus viscosity.[15]

CLINICAL MATERIAL

These data presented are taken from my private gynecologic practice which consists of routine infertility and sterility patients. The general procedure for evaluating these patients follows.

A careful history is obtained on each patient, which includes all details relative to menses, sex habits, marital habits, length of marriage, exposure to conception and number of children by a former marriage, if any. It is also imperative to include an investigation of any therapy the patient might be taking for other reasons.

The patient is then given a complete physical examination with special reference to external genitalia, vagina, cervix and bimanual findings. A complete blood count is done and, although not routinely, a basal metabolism is done in most cases. A Huhner test is done. Based on these findings, the husbands are referred to a urologist for treatment if necessary or indicated.

Patients are usually instructed in the use of an ovulatory thermometer and told to keep such records. They are encouraged to copulate during the rise in temperature phase of their menstrual cycle. This of course is of limited value, but it is helpful in some cases. In some cases an endometrial biopsy is obtained. This has been done when the temperature charts seemed to be of little value or were so poor that it was difficult to determine if and when ovulation occurred.

After careful evaluation of the woman, and following the work-up of her husband, if all factors appeared normal, it is deemed advisable to evaluate the fallopian tubes for patency. I have been using hysterosalpingography rather than the Rubin test.

TECHNIC

Following the establishment that a hysterosalpingography was necessary, the procedure used was as follows:

Appointment—Each patient is requested to report to the hospital at a definite time in the morning. This appointment is made about five days after the cessation of a normal menstrual period. She is instructed not to eat breakfast the day the hysterosalpingogram is to be done.

Premedication—No premedication is used routinely. In only a few cases[3] has premedication been used. For these cases 50 mg. of Demerol was given subcutaneously on arrival. This was done because of individual personalities. It was known that these patients were quite apprehensive concerning any type of procedure. Even routine pelvic examination in the office upset them, and it was felt that some mild premedication would be helpful.

Preparation of Patient—The patient is placed on an x-ray table with Bucky in the lithotomy position and draped for vaginal examination. The vulva and vagina are cleansed with Septisol solution.

Instrumentation—Sterile gloves, speculum, tenaculum, cannula and uterine sound are used to visualize the cervical os and position the cannula for the introduction of the water-soluble contrast medium.

Procedure—The water-soluble contrast medium

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is placed in a 10 cc. Luer lock syringe which is attached to the cannula. With little force or pressure on the syringe plunger, the water-soluble contrast media is cautiously introduced into the uterine cavity. I have found that from 2 to 5 cc. of medium will give a good x-ray picture, but have found recently that 3 to 4 cc. of medium is best in most cases. The patient remains in the flat position throughout the procedure. The Trendlenberg position is not necessary at any time. Fluoroscopy may be used to visualize the uterine cavity and fallopian tubes although this is rarely done. I obtain a single film which is taken one to two minutes after all of the medium has been introduced. Occasionally a second film may be necessary. The film acts as a permanent record for the case in question.

On completing the procedure, the cannula, tenaculum and speculum are removed from the vagina. On reviewing the x-ray, if another is necessary, the second film may be taken.

Contrast Medium—The water-soluble contrast medium, Salpix, has been used in all cases reported in this series. Other media were used prior to Salpix's introduction in 1953. Since then it has been the medium of choice.

Discharge of Patient—The patient is given a sanitary napkin to wear. This allows for absorption of any medium escaping from the uterine cavity. The patient is allowed to return home immediately. She is instructed to lie down on arriving home and "take it easy" for the remainder of that day. If any abdominal pain occurs, she is told to place a hot water bottle on her lower abdomen. I also give each patient a prescription of Codeine gr. ½ with aspirin gr. 5 which is to be filled if necessary for pain. In only one patient was any medication necessary.

REACTIONS TO PROCEDURE

To date no patient has had any reaction to Salpix. No complications or sequelae have resulted from the procedure. Only one patient in thirty-three who had hysterosalpingograms has had even the slightest amount of discomfort, and that was minimal.

WHY WATER-SOLUBLE MEDIUM

Physically, oil and water do not mix. Therefore, a sharp line of demarcation may be seen when the two are placed in a container. Similarly, the fluid lining of the cervical canal, uterine cavity and fallopian tubes is aqueous in character. Oil base contrast media do not, by their physical properties, freely mix with these aqueous secretions. Small uterine and tubal defects, therefore, may be easily missed. Water-soluble contrast medium for hysterosalpingography naturally is the medium of choice to demonstrate cervical, uterine and tubal pathologic conditions and anomalies.

Older clinicians have all been taught that a "24-hour film" is necessary to demonstrate tubal patency. They feel that if oily medium is allowed to remain for twenty-four hours, perhaps some will work through the tubes proving tubal patency. This cannot be shown with water-soluble medium because of its rapid absorption. With the advent of a water-soluble contrast medium, tubal patency may be diagnosed within an hour or two, thus eliminating the need for a "24-hour film."[9] At best, the "24-hour film," showing oily contrast medium in the peritoneal cavity, demonstrates only one fallopian tube patent, unless direct visualization of oily medium extrusion from both fimbria has been noted. Again, oily contrast medium may not pass small permeable strictures because of its physical properties (oil vs. water). But because of water-soluble contrast medium's physical properties, these small permeable strictures are easily demonstrated. I feel that water-soluble contrast medium will show tubal patency quickly and rapidly because of its physical properties, and by use of it the "24-hour film" need not be obtained, as it adds nothing to the work-up.

Since there are no clinical advantages to the "24-hour film," neither are there economic advantages to the patient. A second trip, office fee and film costs are eliminated. At best, this procedure entails a fair financial outlay. By eliminating the "24-hour film" the procedure is made more attractive to those who need it. This, to me, has been one of the big drawbacks to the use of hysterosalpingography.

Likewise, in using water-soluble contrast medium the operator's technic is not the same as with oily media. To me this has been one of the major areas for complaints. The technic is quite simple and, more important, too much contrast medium is used too often. The capacity of the uterine cavity and fallopian tubes cannot be predicted. It is not necessary to fill the uterine cavity to capacity. Good films may be obtained using only a few cc. of the water-soluble contrast medium.

Dorland defines hydrosalpinx as "the distention of an oviduct with a watery fluid." True, oily contrast medium will partly outline a hydrosalpinx. It (oil) will not mix freely with the contents of a hydrosalpinx. Emulsifiers are not used in oily contrast medium to permit free dispersion. If they were, mere physical proximity would not lead to a dispersion. For oil and water dispersion, rapid agitation is required. Such a mixing procedure is impossible during hysterosalpingographic examinations. Conversely, water-soluble media mix freely with the fluid contents of a hydrosalpinx and delineate the condition as well as indicate the size of the problem.

One does not need to have completed a residency in radiology to interpret the films shown or others taken for this purpose. There are no bony interferences. The contrast is distinguishing black from white in the developed film. An occasional gas bubble in the intestinal tract may be confusing but rarely presents any real problem. On these occasions I have resorted to a lateral film. This immediately clarifies the impressions.

Therefore, it behooves one to slightly modify technic and use physically compatible contrast medium in the use of hysterosalpingograms for the study of infertility and sterility.

RESULTS

It is difficult to evaluate pregnancy and the importance of hysterosalpingography in sterility cases. However, in this series the results are rather striking. To include hysterosalpingography as playing a part in conception, a time limit of six months was chosen from the time of hysterosalpingogram to last menstrual period. In all of the cases in which pregnancy occurred, this criteria was met (table 1).

There were twenty-nine patients of whom fifteen became pregnant. However, of the fourteen that did not, there are some that I feel should be excluded when evaluating the effects of hysterosalpingography and pregnancy. These cases include three patients who had both tubes closed; one patient had severe endometriosis, proven surgically; one patient had a chronically ill husband who was not studied and intercourse was rare, if ever.

If one eliminates these five cases, then of twenty-four cases fifteen became pregnant within six months following hysterosalpingograms. Two of these fifteen patients became pregnant twice, each time following hysterosalpingograms. For statistical purposes these patients are counted only once and not included as two pregnancies. If they were counted as two pregnancies, the statistics would look better. These two patients both became pregnant each time immediately following hysterosalpingograms. This does not prove too much, but it is rather spectacular and gives food for thought.

From these studies there is a pregnancy rate of 62.5 per cent (fifteen out of twenty-four) following hysterosalpingograms. By including the two cases, each with two pregnancies, the pregnancy rate is 65.4 per cent (seventeen out of twenty-four).

INFLUENCE OF HYSTEROSALPINGOGRAPHY ON PREGNANCY

TABLE 1

Patient	*No. Years Married*	*Age at Hysterogram*	*Pathology Found*	*Pregnancy After Hystero.*	*Interval Between Hystero. & L.M.P.*	*Complications or Sequelae*	*Remarks*
V. W.	4.5	27	None	Yes	2 mos.	None	Had 2 hysterograms. Pregnant after both.
N. K.	7	28	None	Yes	1 mo.	None	Missed 1st period after hysterogram.
V. K.	5	24	None	No	——	None	Husband also normal.
L. L.	9.5	30	None	Yes	2 mos.	None	Normal pregnancy and infant.
N. G.	6	28	Lt. tube closed	Yes	1 mo.	None	Had 2 hysterograms. Pregnant after both.
C. M.	9	30	None	Yes	6 mos.	None	Normal pregnancy and infant.
N. S.	3	26	Rt. tube closed	Yes	1 mo.	None	Had 2 hysterograms. Second just finished.
A. M.	10	29	None	No	——	None	Husband refused work-up.
V. F.	8	29	None	Yes	4 mos.	None	Normal pregnancy and infant.
C. W.	3	24	Rt. tube closed Dextro position of uterus	Yes	1 mo.	None	Patient missed 1st period after hysterogram.
D. C.	6	28	None	Yes	5 mos.	None	Normal pregnancy and infant.
L. T.	4	27	None	Yes	1 mo.	None	Normal pregnancy and infant.
D. S.	3	29	Dextro position of uterus	No	——	None	Severe endometriosis surgically proven 14 months after hysterogram.
L. F.	3	24	None	No	——	None	
M. C.	6.5	23	None	Yes	4 mos.	None	Normal pregnancy and infant.
B. D.	7	30	Rt. tube closed	No	——	None	Poor cooperation of patient.
D. C.	3	23	Retroversion grade	Yes	1 mo.	Mild lower abd. pain 4-5 hr. medication Rx	Only patient requiring medication. Surgically endometriosis prior to hysterogram.
E. M.	4	35	None	No	——	None	Husband chronic invalid, not evaluated. Coitus rarely.
E. O.	9	30	None	No	——	None	Husband normal.
J. M.	8	29	Both tubes closed	No	——	None	Surgery offered. Patient undecided.
P. K.	7	25	None	Yes	2.5 mos.	None	Normal pregnancy and infant.
B. F.	4	30	None	Yes	5 mos.	None	Normal pregnancy and infant.
J. B.	4	24	Both tubes closed	No	——	None	Plastic performed. Rt. tube open on hysterogram. No pregnancy yet.
N. K.	3.5	22	Lt. tube closed	No	——	None	
V. H.	13	31	Dextro position of uterus	No	——	None	
P. H.	6	31	Sinistro position of uterus	No	——	None	
N. W.	3.5	23	Lt. tube not visualized	Yes	6 mos.	None	Normal pregnancy and infant.
F. F.	9	27	Infantile uterus	No	——	None	Infantile uterus on physical exam. suspected.

CASE ILLUSTRATIONS

Case 1. M. C. This 23 year old, Gr. 0, was first seen June 3, 1953. She had been married six and one half years. Contraceptive technics had been used for the first year and one half of her marriage; since then no efforts were made to prevent conception. Her menstrual history was normal, periods regular and there had been no serious illnesses or operations. General physical examination showed no abnormalities. She was instructed in the use of a temperature chart. Laboratory data were as follows: red blood cells 3.8 million, Hgb. 78 per cent, white blood cells 6,000 with normal differential, and basal metabolic rate +4. The patient was placed on a general hematinic.

The husband in this case claimed he had been examined and that everything was normal. It was decided to go along with this assumption and reevaluate him at a later date.

The temperature chart studies indicated ovulation to be about the thirteenth day of the cycle. A hysterosalpingogram was performed on August 25, 1953. This revealed normal uterus and both tubes patent. The last menstrual period was on December 15, 1953. Her prenatal course was uneventful followed by a normal labor and delivery on September 5, 1954, of a male infant.

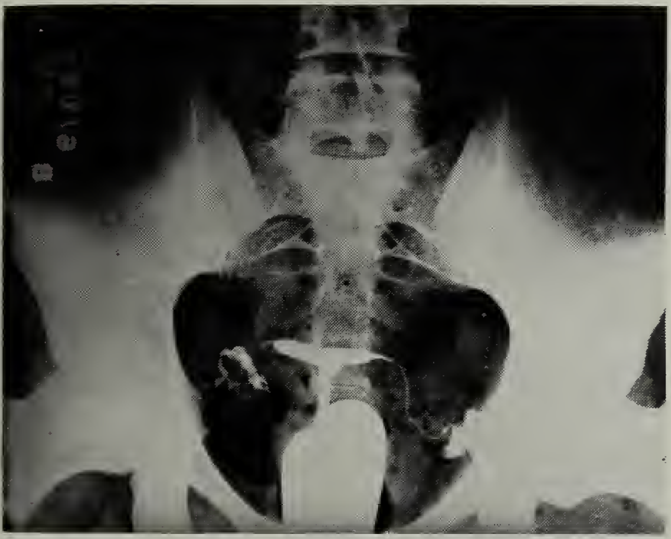

Fig. 1. Case 1. M. C.

Case 2. P. K. This was a 25 year old, Gr. 0, seen first on April 28, 1953, after seven years of marriage. Her major complaint was dysmenorrhea. There were no positive organic findings. An Rx for dysmenorrhea was fairly successful, but after several visits the problem of sterility was presented. Again a normal menstrual history was obtained. Laboratory data were red blood cells 4 million. Hgb. 80 per cent, white blood cells 6,500 with normal differential, and basal metabolic rate −10. She was placed on Thyroid gr. ½ b.i.d. and instructed in the use of a temperature graph. The Huhner test revealed sperm count of 35,000,000, small amount of pus and normal volume.

A hysterosalpingogram was decided upon to evaluate the tubes. If conception did not occur within a few months, the husband was to be rechecked and perhaps treated. The hysterosalpingogram was done on June 28, 1954. Both tubes were found patent. The last menstrual period occurred on September 7, 1954, followed by a normal prenatal period, labor and delivery of a female infant on June 15, 1955.

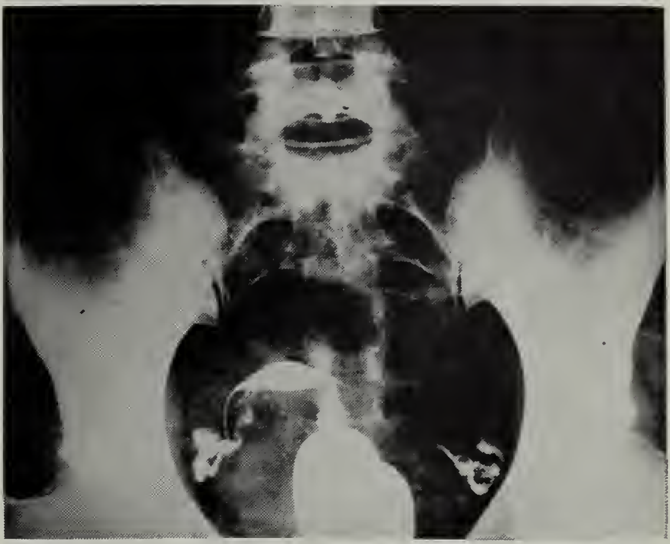

Fig. 2. Case 2. P. K.

Case 3. N. G. On August 31, 1954, this 28 year old, Gr. 0, reported a marriage of six years. No contraceptive measures had been used. Her past history revealed no serious diseases. The menstrual history was normal and menstrual periods regular. On physical examination all systems were within normal limits. She was instructed in the use of a temperature chart. Laboratory data included red blood cells 4.25 million, Hgb. 82 per cent, white blood cells 8,200 with normal differential, and basal metabolic rate −12. She was given a prescription for thyroid tablets gr. ½ b.i.d.

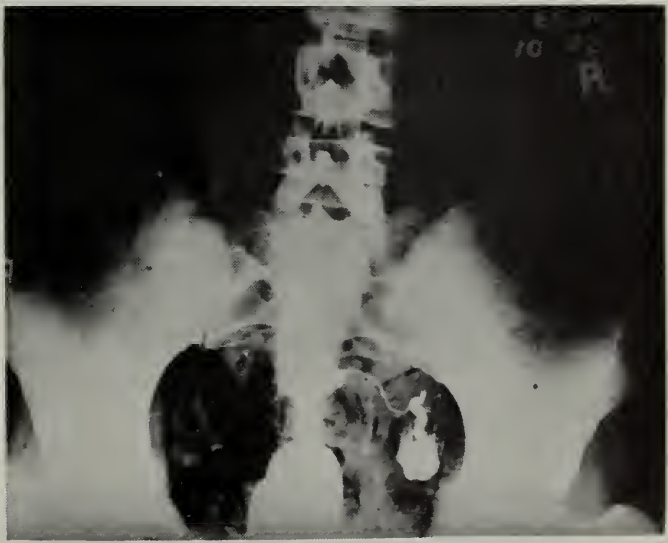

Fig. 3. Case 3. N. G.

Her husband was referred for study, and these data obtained: volume 4 cc., sperm count 40 million, no pus, no pus on prostatic massage.

Reviewing the temperature chart, ovulation was about the fourteenth day of the cycle. On October 22, 1954, a hysterosalpingogram was done. The right fallopian tube was open while the left tube appeared closed. The last menstrual period was on November 7, 1954. She was followed through a normal prenatal course, labor and delivery which resulted in a healthy male infant on September 29, 1955.

Case 4. J. M. This 27 year old, Gr. 0, was first seen in April 1952. She had been married six years. Her initial complaint was leukorrhea. Her husband had recently returned from military service. She was treated and not seen again until February 1954. At that time she presented herself as a sterility problem. Since her husband's return from service no contraceptive measures had been used. Physical findings were normal as well as the menstrual history. She was instructed in the use of a temperature chart. Laboratory data included red blood cells 4.5 million, Hgb. 87 per cent, white blood cells 7,750 with normal differential, and basal metabolic rate +1.

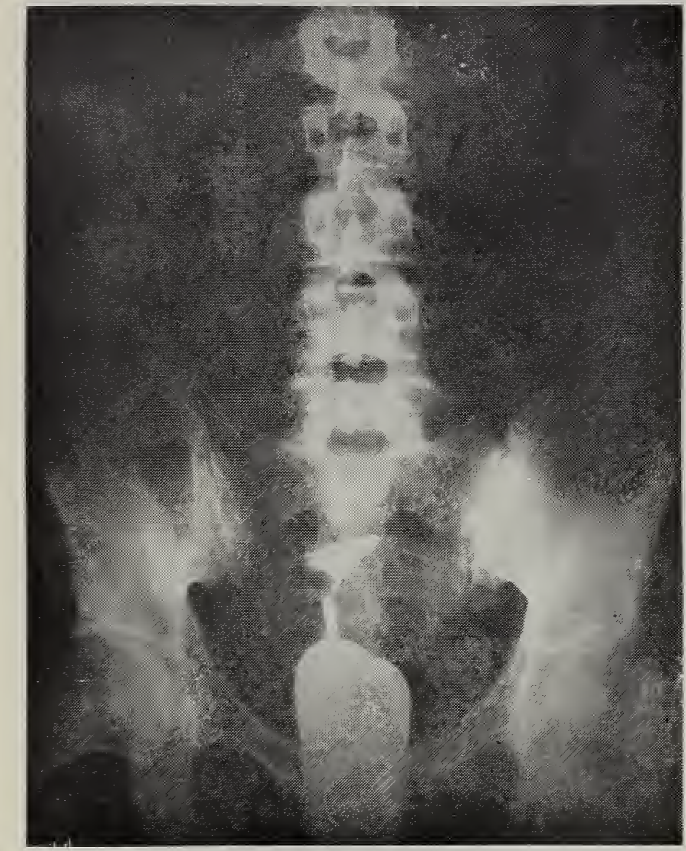

Fig. 4. Case 4. J. M.

Huhner test results were a volume of 3.5 cc., sperm count of 65 million, and no pus.

The temperature chart studies indicated a normal curve with ovulation occurring on the fifteenth day. A hysterosalpingogram was done on May 21, 1954, and revealed both fallopian tubes closed. To date this patient has not undergone any type of plastic correction for the condition.

CONCLUSIONS

1. Hysterosalpingography is a simple and painless (or at best a minimum of discomfort) technic.
2. Little special equipment is required to conduct the procedure.
3. Only a small amount of water-soluble contrast medium, Salpix, needs to be used due to its physical properties, excellent radio-opacity and absence of complications or sequelae.
4. Although difficult to truly evaluate in this small series of twenty-nine patients, hysterosalpingography with water-soluble Salpix has improved the pregnancy rate and certainly would indicate it to be of therapeutic value.
5. A "24-hour film" is not necessary or advisable.
6. In this series of thirty-three hysterosalpingograms, Salpix has produced absolutely no untoward effects and is extremely safe to use without hesitation.
7. No routine preoperative medication is necessary and only one of twenty-nine patients required a postoperative analgesic for abdominal discomfort (endometriosis case).

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Evaluation of Cerebral Palsy Patients

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IN 1953 I[1] reported on the evaluation of 145 patients who had been followed in the Cerebral Palsy Clinic at Firmin Desloge Hospital. Since then an additional 503 patients have been seen for a total of 648.

For the last year the classification of cerebral palsy, adopted by the American Academy for Cerebral Palsy in November 1954, has been used as follows:

1. Spasticity.
2. Athetosis.
3. Ataxia.
4. Rigidity.
5. Atonia.
6. Tremor.
7. Mixed.

Some of the older cases probably would be reclassified if they were seen again.

Of the 648 patients, 126 were felt not to be cerebral palsy. They included retardation, brain damage, epilepsy, spina bifida and other conditions.

The 522 cerebral palsy cases were classified as follow:

	Cases	*Per Cent*
Spasticity	259	49.6
Athetosis	150	24.9
Ataxia	32	6.1
Rigidity	68	13.0
Atonia	3	0.6
Tremor	1	0.2
Mixed	23	4.4
Undiagnosed	6	1.2
Total	522	100.0

The percentage of trainable patients is gradually decreasing with each review, perhaps because, as a center, only the more severe cases are being seen. There were 290 (55.5 per cent) trainable, 186 (35.7 per cent) untrainable and 46 (8.8 per cent) questionable, although most of these will probably not benefit. Spastic patients are still the most favorable (70.7 per cent) and rigidity least (7.4 per cent).

	Trainable Per Cent	*Questionable Per Cent*	*Untrainable Per Cent*
Spasticity	70.7	7.0	22.3
Athetosis	58.4	6.2	35.4
Ataxia	56.2	9.4	34.4
Rigidity	7.4	11.8	80.8
Atonia	—	100.0	—
Tremor	100.0	—	—
Mixed	30.4	4.3	65.3
Undiagnosed	—	83.3	16.7
Total	55.5	8.8	35.7

Mentality was determined in 452 cases, the remaining 70 being too young or else not yet tested. An I.Q. of 80 or above was considered as average (N), 70 to 80 borderline (B) and below 70 as deficient (D). Excluding those in whom the I.Q. had not been determined, 39.8 per cent were normal, 8.6 per cent borderline and 51.6 per cent deficient. The I.Q. of 64.4 per cent was average in the trainable group, with 12.6 per cent borderline. The spastic patients were the best. In the untrainable group only 6.5 per cent were average, with only a small group borderline, the great percentage being defective.

	N	*B*	*D*	?
		TRAINABLE		
Spasticity	62.8	9.8	18.6	8.8
Athetosis	51.3	13.2	23.7	11.8
Ataxia	38.9	16.7	33.3	11.1
Rigidity	40.0	—	40.0	20.0
Mixed	57.2	28.6	—	14.2
Total	57.9	11.4	20.7	10.0
Excluding ?	64.4	12.6	23.0	
		UNTRAINABLE		
Spasticity	6.9	1.7	87.9	3.5
Athetosis	10.6	8.7	65.2	15.2
Ataxia	—	—	100.0	—
Rigidity	1.8	—	89.2	9.0
Mixed	—	—	73.3	26.7
Total	5.9	2.7	81.7	9.7
Excluding ?	6.5	3.0	90.5	
		TOTAL		
Spasticity	46.1	7.3	37.0	9.6
Athetosis	34.6	10.8	30.7	13.9
Ataxia	21.9	9.4	56.3	12.4
Rigidity	4.4	1.5	77.9	16.2
Mixed	17.4	8.7	52.1	21.8
Total	34.4	7.5	44.7	13.4
Excluding ?	39.8	8.6	51.6	

In evaluating the results the original and present abilities of the patients were classified as: (1) self sufficient, (2) requiring slight help, (3) requiring moderate help, (4) requiring much help, and (5) helpless. There have been 323 patients followed for more than two years. Eighty-two per cent of the untrainable patients were essentially helpless at onset, with little change. Of 210 trainable cases, 37.6 per cent were essentially self sufficient originally whereas 70.1 per cent are at present trainable.

Of the patients 320 (61.3 per cent) have speech impairment and 140 (26.8 per cent) give a history of convulsions. Only 19.3 per cent of trainable cases have convulsions, whereas 37.1 per cent of the untrainable do.

Of the trainable cases 134 (46.2 per cent) received braces, chiefly those who were spastic.

Twenty-six (8.7 per cent) trainable and 55 (29.6

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	Spastic		*Athetoid*		*Ataxic*		*Mixed*		*Total*	
					TRAINABLE					
1.	28.8	54.8	18.6	30.5	—	14.2	—	33.3	23.8	45.2
2.	14.2	22.2	11.9	27.9	28.6	57.2	16.7	33.3	13.8	24.9
3.	19.2	21.4	11.9	22.0	28.6	28.6	—	16.7	16.7	16.7
4.	20.0	8.2	17.0	10.2	28.6	—	33.3	—	19.5	9.5
5.	17.8	0.7	40.6	10.2	14.2	—	50.0	16.7	26.2	3.7

UNTRAINABLE

1.	4.4	5.3	
2.	5.3	8.0	
3.	8.0	8.8	
4.	6.2	8.0	
5.	76.1	63.7	
Died		6.2	(7)

(First column is original condition, second is present condition.)

	Trainable	*?*	*Untrainable*	*Total*
SPEECH IMPAIRMENT. CASES.				
Spasticity	57	11	40	108
Athetosis	64	3	45	112
Ataxia	14	1	11	26
Rigidity	4	4	49	57
Tremor	1			1
Mixed	4		11	15
Undiagnosed			1	1
Total	144	19	157	320
Per Cent	49.7	41.3	84.3	61.3
CONVULSIONS. CASES				
Spasticity	35	9	26	70
Athetosis	14	3	9	26
Ataxia	4	1	4	9
Rigidity	2	1	23	26
Mixed	1		7	8
Undiagnosed		1		1
Total	56	15	69	140
Per Cent	19.3	32.6	37.1	26.8

per cent) of the untrainable cases received special equipment. For the latter this included wheelchairs, special chairs and standing tables to make the handling of these severely handicapped children simpler for the parents.

	Trainable	*?*	*Untrainable*	*Total Cases*
BRACES. PER CENT.				
Spasticity	51.9	—	31.0	113
Athetosis	42.2	25.0	43.5	54
Rigidity	40.0	—	29.1	18
Mixed	71.4	100.0	20.0	9
Undiagnosed	—	—	100.0	1
Per Cent of Total	46.2	6.5	31.2	195
SPECIAL EQUIPMENT. PER CENT.				
Spasticity	4.9	—	10.3	15
Athetosis	18.4	12.5	37.0	32
Ataxia	—	—	18.2	2
Rigidity	60.0	12.5	47.3	30
Mixed	—	100.0	26.7	5
Per Cent of Total	8.7	6.5	29.6	84

Recently Miltown and Flexin have been tried on a few cases. One athetoid case on Miltown showed definite improvement for a while, but then regressed.

There is still the problem of care for the severe patient who needs institutionalization. Definite recommendation has been made for this in forty-four cases, but the three to four year waiting period at the state institutions remains.

The spastic patients fell in the following categories:

	Total	*Per Cent*	*Trainable*	
			NUMBER	PER CENT
Right Hemiplegia	82	31.7	60	73.2
Left Hemiplegia	54	20.8	38	70.4
Monoplegia	4	1.5	3	75.0
Paraplegia	62	23.9	52	83.9
Triplegia	8	3.1	2	25.0
Quadeiplegia	49	19.0	28	57.2
		100.0		

Fifty-six patients have had ninety-four operations. Gastrocnemius recession is still the most common followed by heel cord lengthening. The recession has been found to be a quite satisfactory procedure.

Gastrocnemius recession	28
Heel cord lengthening	16
Adductor tenotomy	10
Triple arthrodesis	9
Anterior tibial transplant	6
Hamstring lengthening	4
Pronator section	3
Obturator neurectomy	2
Stoffel	3
External rotator section	1
Eggers	4
Wrist fusion	2
Plantar fasciotomy	1
Craniotomy	3
Ilio-tibial band section	1
Posterior tibial section	1
	94

CONCLUSION

There have been 648 patients seen of whom 522 were diagnosed as having cerebral palsy. In contrast to 1953 there has been an increased proportion of spastic patients. The athetoid patients have decreased, perhaps due to increased awareness of the Rh factor and other problems of anoxia. The decrease in rigidity patients may be related to the addition of the mixed group which includes many previously called rigidity.

There has been a decrease in the percentage that can be helped, from 66.7 per cent in 1953 to 55.5 per cent now. Associated with this there has been an overall increase in the percentage of mental retardation from 52 per cent to 60.2 per cent, although there has been little change in the mentality of the trainable cases.

Prognosis is best for the spastic and poorest for the rigidity patients. Experience has shown that specific diagnosis and prognosis are frequently difficult to determine before the age of 2, and therefore each patient must be carefully evaluated and may require a trial period of observation and training. Many untrainable patients must be kept on a supervisory program both because of the lack of suitable institutions and to prevent further search for care elsewhere—expensive both to patient and to agencies providing such services.

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Case Reports

Leukoplakia of the Renal Pelvis

HERLUF G. LUND, M.D., AND LAWRENCE M. ARONBERG, M.D., *St. Louis*

LEUKOPLAKIA of the renal pelvis, or of the urinary tract, is known to be a precursor of squamous cell carcinoma. Leukoplakia is a metaplasia of the normal transitional epithelium of the urinary tract to that of a keratinizing squamous epithelium. It was first described in the urogenital tract by Robintansky in 1861. In the urinary bladder, Epstein in 1882, was the first to report on leukoplakia in the renal pelvis. To date a review of the literature reveals less than a hundred cases of leukoplakia of the renal pelvis reported, and most of these are postoperative or postmortem findings. Only six cases were diagnosed preoperatively. In view of the small number of cases diagnosed preoperatively, it is wished to present this case and review briefly the pathogenesis and diagnosis of this disease.

REPORT OF CASE

A. D., a 33 year old white male was admitted to the hospital on June 17, 1954, with severe colic-like pain in the right flank which radiated to his right testicle. With this pain he had urgency and burning of urination, of twelve hours duration. There was no history of chills or fever. He stated that he had fifteen previous episodes of right renal and ureteral colic since 1951 which he, and several doctors, thought due to the passage of calculi. In 1949 he was hospitalized in another hospital for a urinary infection.

Physical Examination—Temperature was 98.6 F., blood pressure 120/90, pulse 92. The patient was a well developed, well nourished white male who appeared to be in acute pain. Except for tenderness in his right costo-vertebral angle and right flank with some associated muscle guard, the rest of the physical examination was essentially negative.

Laboratory Findings—The Kahn test was negative. The red cell count was 4,920,000, the hemoglobin 14.3 mg., and the white cell count 8,400, with a normal differential. The urine was slightly cloudy and showed many white cells, a few red blood cells and bacteria which on culture was found to be Bacillus proteus. Also noted in the urine were many epithelial cells and cornified epithelial cells. Chest x-ray taken on June 17, 1954, was read as normal. Tests taken on June 17, 1954, showed a normal left kidney and ureter, but the right kidney showed delayed function with hydronephrosis and hydro-ureter. A cystoscopy on June 17 showed a small portion of tissue protruding from an inflamed right ureteral orifice. The left orifice appeared normal. This tissue was passed spontaneously which relieved the patient of pain. The microscopic section of this tissure and the urinary sediment cell block showed keratized squamous epithelium (fig. 1). Retrograde pyelograms, on June 18, showed dilated right renal pelvis and ureter (fig. 2). A nephro-ureterectomy was done on June 21. Pathologically, on gross examination, it showed that most of the epithelium had been sloughed away except for a small portion of keratinized squamous epithelium (fig. 3).

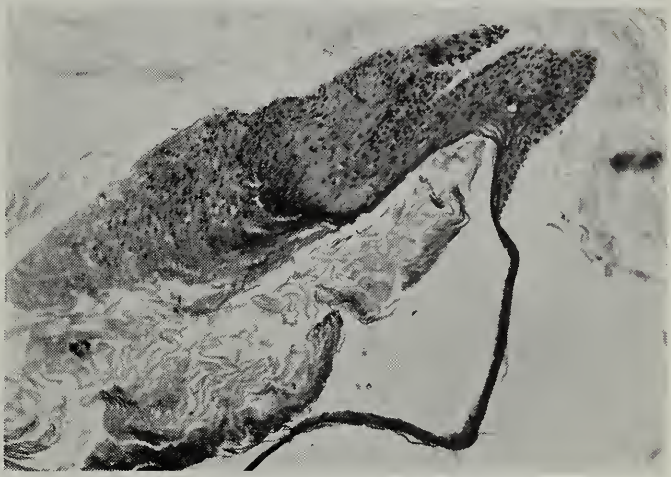
Fig. 1. Keratized squamous epithelium.

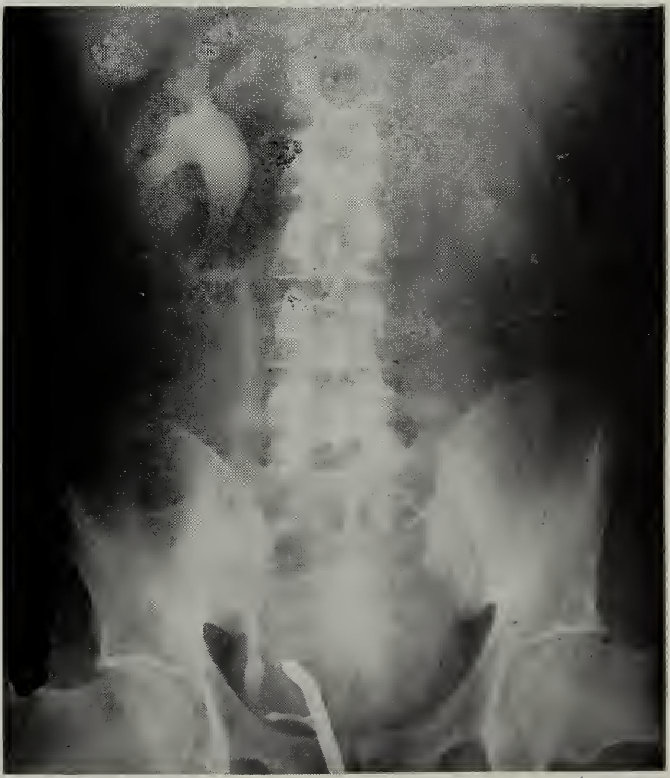
Fig. 2. Dilated right renal pelvis and ureter.

Microscopic Examination—Microscopic section of the kidney pelvis revealed marked squamous metaplasia with keratinized epithelium (fig. 4).

DISCUSSION

Leukoplakia occurs most commonly in the 30 to 50 year age group and more often in males than in females.[1] The etiology is unknown. However, it

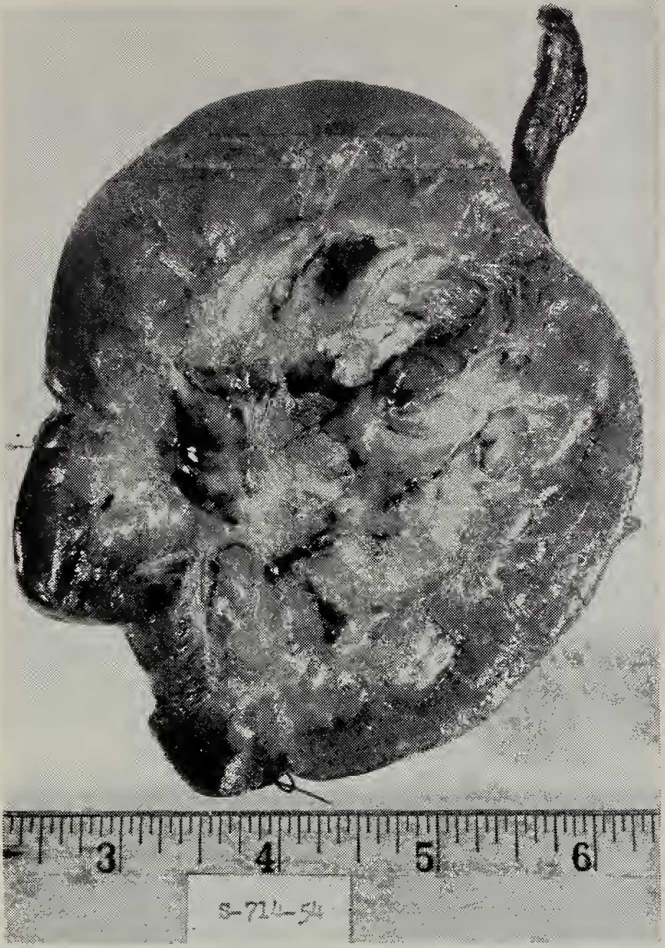

Fig. 3. Most of epithelium sloughed away except for small portion of keratinized squamous epithelium.

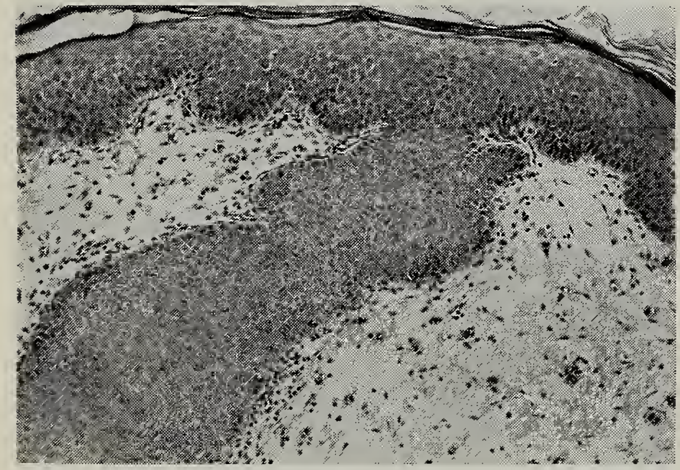

Fig. 4. Marked squamous metaplasia with keratinized epithelium.

has been noted that chronic infection and pyuria are closely associated with or precedes the disease.[2] Leukoplakia also has been found to be present with renal or ureteral calculi, ureteral obstruction and chemical irritation. One theory which was advanced was that of embryonal cell rest. Another theory was that leukoplakia was due to lack of vitamin A. Both of these theories have little support today.

Leukoplakia rarely has been diagnosed preoperatively. When diagnosed preoperatively it is on the finding microscopically of keratinized cells of sloughed squamous epithelial cells in the urine. Arnholdt[3] and Thompson[4] believe that the pyelographic findings are diagnostic by appearance of folds or shadow lines in the renal pelvis due to the leukoplakia.

The treatment of leukoplakia when the kidney and ureter are involved is a nephro-ureterectomy. However, in view of the fact that chronic infection must play an important part in the disease, it would appear that the best preventive treatment is to control the infection by use of the drugs which are available today.

SUMMARY

1. Leukoplakia of the renal pelvis and ureter is relatively rare.
2. Leukoplakia is a precursor of squamous cell carcinoma and thus should be removed surgically.
3. Preoperative diagnosis of leukoplakia is seldom made, but might be improved by more careful urinalysis.

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Myocardial Infarction

Immediately Following Delivery

Report of One Case

E. L. LEVINE, M.D., *Vandalia,* AND R. J. LANNING, M.D., *Hannibal*

NICHOLAS A. ANTONIUS, M.D., et al.,[1] report one case of myocardial infarction in the seventh month of gestation, and review the world literature listing only seven previous cases of myocardial infarction during pregnancy and in the immediate postpartum period. The purpose of this report is to add one additional case of myocardial infarction occurring within an hour following delivery.

CASE REPORT

M. F., aged 37, gravida II, para I, was first seen for prenatal care by one of us (E. L. L.) in her seventh month of gestation. Her normal weight was 159 pounds and her weight at the time of delivery was 180 pounds. At no time during her prenatal period was her blood pressure abnormal, nor were there any urinary changes. Throughout the pregnancy the patient was quite apprehensive as she felt she was too old to go through with a pregnancy. Her estimated date of confinement was October 25, 1955, and as that date passed without anything happening, she began to worry a good deal, and to complain of precardial indigestion usually at night after going to bed, and relieved by sitting up on the edge of the bed and drinking water. The patient stated that the indigestion never did last more than a minute, and that the pain was mild and always located over the sternum. On November 13, 1955, to quiet the patient's anxiety, x-ray pelvimetry was performed, and the radiologist reported no cephalopelvic disproportion, nor was the fetus large, the report estimating the fetus to weigh between 6 and 7 pounds.

On November 19, 1955, the patient was admitted to St. Elizabeth's Hospital in active labor. A 7 pound, 12½ ounce male infant was delivered at 12:15 a. m. on November 20, 1955, using Schwartz outlet forceps. No episiotomy was necessary. Routine examination of the cervix following delivery revealed two small tears and these were sutured with 0 chromic catgut, one at 3:00 o'clock and one at 9:00 o'clock.

There was no excessive bleeding, and total loss was estimated not to have exceeded 500 cc. The patient had received tuinal gr. 3 as premedication, and open drip chloroform during the second stage. Following the delivery, the patient's pulse was noted to be rapid, 110, and of poor volume. Her blood pressure was 90/60 and her skin felt cool and clammy, and she had a poor color. Although there had been no excessive bleeding to account for the patient's vascular collapse, one pint of blood was given in the left anticubital fossa, slowly. After giving one half pint of blood the patient improved with blood pressure rising to 110/74. The transfusion was discontinued at 3:00 a. m., at which time the patient complained of slight pain and numbness in the left arm and hand and, suddenly, her respiration became irregular, the patient became cyanotic, and the pulse became thready. The Sister on duty was unable to obtain any pulse or blood pressure, and immediately administered oxygen, and gave 2 cc. metrazol intramuscularly. By the time observor returned, at 3:30 a. m., one of us (R. J. L.), was already in attendance, and patient was much improved with blood pressure up to 110/60, with pulse of 110, and respiration of 18. By 5:00 a. m. blood pressure, pulse and respiration were stabilized and oxygen was no longer necessary and was discontinued. Serial electrocardiograms revealed a posterior myocardial infarct. The patient was placed on dicumerol and her postpartum course was thereafter uneventful. Her prothrombin time at its slowest was 27 per cent and was maintained at about 40 per cent. At no time was the lochia excessive, and patient was dismissed on her twenty-first postpartum day, and dicumerol was stopped at that time.

SUMMARY

This report presents a case of myocardial infarction immediately following delivery. Patient's hospital course, and course since leaving the hospital, have been uneventful. This is the ninth reported case in the entire world literature of myocardial infarction during pregnancy or in the immediate postpartum period.

Grand Rounds Conference

Hamman Rich Disease

Saint Louis University School of Medicine

Joseph A. Ezzo, M.D.: The case today is that of a 60 year old white salesman who entered the University Hospital on February 24, 1956, complaining of cough and dyspnea of three months duration.

He had apparently been well until three months prior to admission, at which time he developed a "cold" manifested by rhinorrhea, sore throat and nonproductive cough. These symptoms persisted for nearly three weeks, at which time he consulted his physician. The cough had become productive of small amounts of mucopurulent sputum associated exertional dyspnea and easy fatigability. A chest x-ray at that time revealed patchy infiltrates in both lower lung fields, and the patient was started on a broad spectrum antibiotic. The respiratory symptoms were unchanged by this therapy. The weakness progressively increased, especially in the upper limbs and trunk, and in addition the patient noted some swelling of the ankles. A repeat chest x-ray showed progression of the infiltration. Penicillin and streptomycin were given in lieu of of the broad spectrum drug. This therapy was continued until admission.

On admission to the hospital his complaints were of cough, increasing dyspnea, weakness and pain in the chest and shoulder on the left. The patient denied weight loss, hemoptysis, fever, night sweats, orthopnea, paroxysmal dyspnea and bone pain. His wife volunteered the information that she frequently noticed his "head drooping to one side or the other" during recent weeks and that he apparently did not have the strength to hold his head erect. She also had noticed that he was unable to grasp objects securely.

The patient's past medical history, family history and system review revealed no pertinent positive information.

The physical examination on admission revealed temperature 100.8 F.; respirations, 32 per minute; pulse rate 108 and regular; blood pressure 130/75. He appeared a well developed and well nourished white male, lying flat in bed in no acute distress. The patient coughed frequently throughout the examination. There was a slight dorsal kyphosis and a slight to moderate loss of substance of the muscles of the upper arms, the trapezii and the pectoral groups bilaterally. No fasciculations were seen. There was a generalized moderate muscular weakness.

Fine crepitant rales were present over both lower lung fields. The breath sounds were slightly diminished; otherwise chest findings were not remarkable. The heart size was within normal limits. The rate was 108 per minute and regular. P_2 was louder than A_2. There were no thrills or murmurs.

There was a one plus pretibial pitting edema, and a suggestion of clubbing of the fingers and toes. The nail beds were described as "dusky."

The neurologic examination was not remarkable, nor was the remainder of the physical examination.

Laboratory studies on admission were as follows: Urine: sp. gr. was 1.025, acid reacting and negative for albumin, cells, sugar, uroporphyrins and coproporphyrins. Blood: white count was 14,550 with 85 segments, 9 lymphocytes and 5 eosinophils. The hemoglobin was 15 grams, hematocrit 40 and two L.E. preparations were negative. The fasting blood sugar was 114 mg. per cent, the nonprotein nitrogen and the VDRL were non-reactive.

A venous pressure measured 110 mm. citrate, with an arm to lung circulation time of 6 seconds and an arm to tongue circulation time of 12 seconds.

Lumbar puncture was performed with an opening pressure of 120 mm. of water, and a closing pressure of 60 mm. The Queckenstadt was normal. The fluid was crystal clear, with a normal cell count, normal chemistries and colloidal gold curve.

Sputum studies were negative for acid fast organisms on five occasions. Sputum cultures grew only alpha streptococcus and neisseria catarrhalis. Sputum cytology studies also were negative as were blood and urine cultures. The histoplasmin and tuberculin skin tests were not reactive.

An electrocardiogram showed a sinus tachycardia with no evidence of hypertrophy or myocardial damage.

Roentgenograms of the thoracic spine showed slight dorsal kyphosis, with minimal hypertrophic changes. X-rays of the chest were interpreted as showing "marked increased density of the greater portion of the right lung field and the lower half of the left lung. The diaphragms were smooth and the angles clear. The heart size and contour were not remarkable." Comparison of this x-ray with

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Edited by William A. Knight, Jr., M.D., and William T. Fitzgerald, M.D.

Weekly Medical Grand Rounds held at Firmin Desloge Hospital. These conferences are participated in by members of the departments of Internal Medicine, Surgery and Basic Sciences of the St. Louis University School of Medicine.

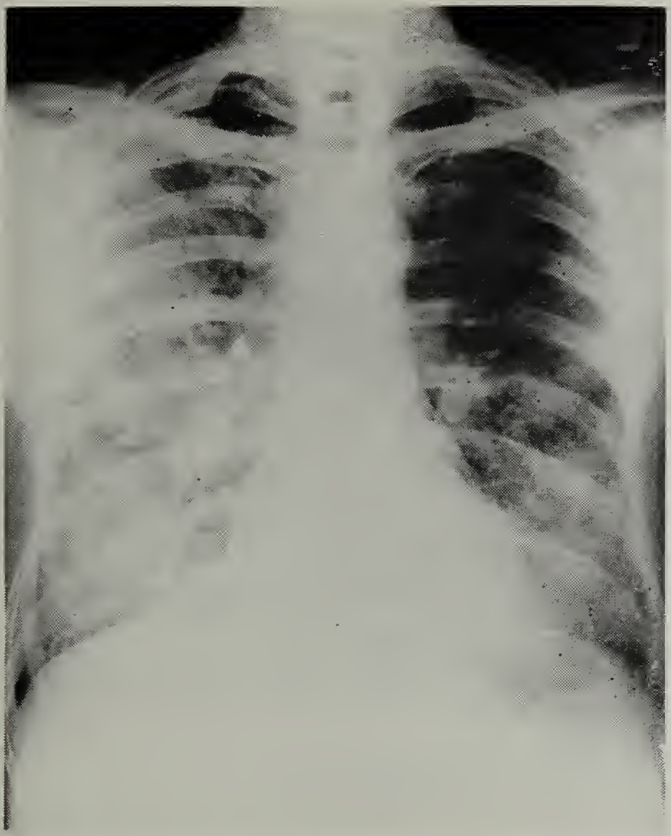

Fig. 1. X-ray of chest taken on admission showing diffuse bilateral reticular pulmonary infiltration.

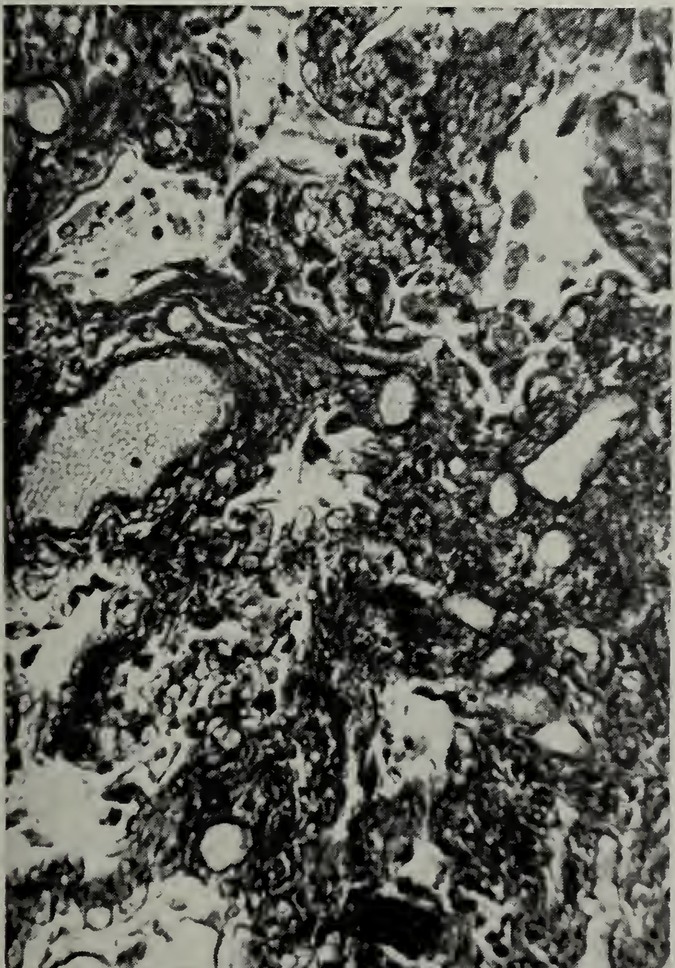

Fig. 2. Microscopic section of lung using Mallory trichrome stain showing extensive interstitial fibrosis.

one made twenty-five days prior to admission showed a marked increase in the extent and density of the infiltrative process (fig. 1).

The patient's course in the hospital was rapidly downhill. Because the patient had had intensive antibiotic therapy prior to his admission, these were withheld, and he was given only a sedative cough mixture for the first two days. The temperature fluctuated between 101 F. and 103 F. On the second day he produced blood-streaked sputum and had a shaking chill. Repeat blood and urine cultures were again negative. He was then given erythromycin 250 mg. four times a day. On the third day the patient became markedly dyspneic, cyanotic and began having difficulty in swallowing. There was a transient beneficial response to aminophyllin and nasal oxygen. Breathing, however, became more rapid and the patient became apprehensive. Early on the fourth hospital day the patient had a grand convulsive seizure and died. There was never evidence of right heart failure, and death was attributed to suffocation.

Autopsy findings were not remarkable except for the lungs which did not float, were heavier than normal, and felt firm and rubbery. On cut section the tissue appeared solid and had a gray color with a suggestive reticular pattern. Microscopic section (fig. 2) revealed dense interstitial fibrosis and in some sections a suggestion of squamous metaplasin of alveolar lining cells. There was no gross evidence of cardiac involvement.

DISCUSSION

JOSEPH A. EZZO: This case fulfills the clinical and pathologic criteria for the diagnosis of diffuse interstitial pulmonary fibrosis as originally described by Hamman and Rich.

The fibrosing diseases of the lungs are manifested by varying respiratory symptoms and signs, and consequently may have widely varying clinical courses. A pattern of pulmonary fibrosis has been described relatively recently which is so distinct in its characteristics that it has been separated from the numerous other types of fibrosis. This also has been called the Hamman-Rich syndrome after the men who first called attention to it in 1935.

This entity represents an acute or chronic pulmonary disease of unknown etiology, characterized clinically by a nonproductive cough, dyspnea, cyanosis and a progressive, usually afebrile, course ending in death either from suffocation or from right ventricular failure. The onset of the disease was first described as being acute, but there have since been cases reported having insidious onsets with protracted courses.

The physical findings of the chest may be normal, but are altered if secondary chest infections occur. Cyanosis and clubbing, or the signs of right ventricular failure, may be present. The patient complains of easy fatigability, weight loss and exertional dyspnea early in the disease.

Early the roentgenogram shows hilar and parenchymal densities. Later there is diffuse bilateral mottling. The extensive fibrosis may give a reticular or nodular pattern and, late in the course, actual confluence may occur.

The laboratory generally is not helpful. The white blood count and sediment rate are normal unless a secondary bacterial infection is present. Polycythemia may be present. Pulmonary function studies usually show a normal vital capacity and a decreased arterial oxygen saturation.

The pathologic findings are characteristic. The lungs are firm, granular, and heavier than water. The cut surface is gray or brown, and shows a fibrous reticular network. Hamman and Rich described four microscopic phases showing progressive changes from early to late stages, but these are impractical in the light of newer work. In brief, there is a progressive proliferation of fibroblasts in the alveolar wall. The walls become so thickened with fibrous tissue that there is encroachment on both the capillaries and the alveolar spaces. An albuminous fluid may be present in the alveolar spaces, and this may be responsible for the formation of a hyaline membrane in areas in which the alveolar epithelium has been necrosed. The collections of fibrous tissue may be infiltrated with monocytes, plasma cells or eosinophils. No polymorphonuclear cells, bacteria, fungi or inclusion bodes are found. Some arterioles may show intimal proliferation, but this is thought to be secondary to the lung disease. Recent investigators, using special stains and phase microscopy, showed that the alveolar wall hypertrophy was due to marked capillary proliferation and hyperplasia of the reticulum fibers, with varying amounts of collagen. They term these findings "reticuloangiosis," and feel this is the responsible mechanism.

It is readily clear that the defect in pulmonary physiology is not one of ventilation, but rather of gas exchange, and for this the lucid term "alveolocapillary block" has been designated. If the course of the disease is sufficiently long, the obstruction to pulmonary flow results in an elevated pulmonary artery pressure with subsequent right ventricular dilatation and hypertrophy leading to eventual failure.

Although the clinical course of the disease is distinctive, the diagnosis must rest with actual examination of the lung tissue since it can be confused with a variety of pulmonary diseases.

The syndrome most likely represents a generalized tissue reaction of the lungs, probably to a variety of stimuli. Since first described there have been many suggestions as to possible etiologic agents, e.g., bacterial, fungal, viral, chemical, hy-

TABLE 1

COMPILED FROM CASES REPORTED IN THE LITERATURE

Case	*Author**	*Age*	*Sex*	*Race*	*Survival Time Onset of Symptoms to Death*	*Dilatation, Hypertrophy of Right Ventricle*
1	Hamman, Rich	41	M	N	4 Months	Present
2	Hamman, Rich	21	F	N	1½ Months	Present
3	Hamman, Rich	37	F	N	1 Year Plus	Present
4	Hamman, Rich	68	F	W	6 Months	Absent
5	Eder	47	M	W	4 Months	Present
6	Potter	33	M	W	8 Months	Present
7	Beams	32	M	W	15 Months	Present
8	Peabody	44	F	W	3½ Years	Absent
9	McMillan	44	F	W	?	?
10	Ferrari	63	F	W	4 Months	Absent
11	Ferrari	41	M	W	3½ Years	Absent
12	Peabody	47	F	W	2 Years	
13	Golden	41	M	W	"Years"	Present
14	Golden	42	F	N	5 Months	Present
15	Golden	63	M	W	Several Years	Absent
16	Golden	50	M	W	Few Months	Present
17	Golden	50	M	W	"Long Time"	Present
18	Rubin	44	F	W	2½ Years	Absent
19	Silverman	36	M	W	21 Months	Present
20	Callahan	55	M	W	3½ Months	Absent
21	Spain	66	F	W	7 Years	Present
22	Spain	47	F	W	8 Months	Present
23	Spain	18	F	N	2½ Months	Present
24	Spain	47	M	W	6 Months	Present
25	Spain	34	F	W	?	Present
26	Spain	59	M	W	1 Year	Absent
27	Spain	23	M	N	2 Months	Absent
28	Katz	51	M		3 Years	Present
29	Heppleston	25	F		17 Months	Present
30	Schechter	31	M	W	5 Months	Present
31	Schechter	38	M	W	5 Years	Present
32	Pokorney	72	M	W	1 Month	Present
33	Pinney	27	F	W	18 Months— Pt. still living	Present
34	Peabody	31	M	W	5½ Months	Absent
35	Peabody	72	F	W	25 Months	Absent
36	Peabody	38	M	W	9 Years	Present

* In most cases, only the first author's name is used.

persensitivity reaction and localized collagen disease. None of these are more than postulated etiologic factors. That a genetic factor may be involved is suggested by the finding of the disease in twin sisters and in a set of brothers in the relatively few reported cases.

Until recently all therapeutic efforts suggested have met with complete failure. Antibiotics and symptomatic therapy do not alter the course. During the last three years several authors have reported amelioration of the symptoms and even regression of the x-ray lesions, with the use of cortisone or ACTH. However, in these cases the cessation of therapy was quickly followed by a severe exacerbation of the disease with a rapid, fatal termination. The question naturally arises as to whether steroids merely mask the disease or whether the drugs actually suppress the process and, when discontinued, allow the exacerbation with greater severity. Several patients have been treated with continuous steroid therapy without apparently altering the course of the disease. Reasoning that steroids suppress fibrous tissue proliferation, but do not reverse these changes once they have taken place, the general opinion is that this therapy should be used early in the disease before permanent changes have taken place, and should be continued indefinitely. There recently has been a case reported[9] of a 27 year old woman who was diagnosed by thoracotomy six months after symptoms appeared. During steroid therapy there has been complete resolution of the lesions both on x-ray and on repeat lung biopsy, as well as relief of symptoms.

Although there have been only thirty-six cases reported since it was first described, the disease probably is more common than this would indicate. There have been at least four cases in the Saint Louis University Hospitals, none of which as yet have been reported, and the same situation probably exists in other medical and chest centers.

The statistical data on these thrity-six cases regarding age, sex, race, survival time and the presence of cor pulmonale is shown in table 1. It can be noted that the average length of survival is approximately one year with a range from one month to nine years. The age range extends from 18 to 72 years with the greatest number in the 40 to 50 year age group. There does not appear to be any significance in sex or racial factors. The presence of cor pulmonale as one would suppose is not necessarily related to the duration of the disease. Several cases existing for more than three years did not have right heart involvement, whereas other cases of only a few months duration did show this complication. The overall incidence of cor pulmonale is about 60 per cent.

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Special Article

How Missouri Stands on Health

J. EARL SMITH, M.D., *St. Louis*

The omniscient Mr. Webster in his definition of the word "stand" includes this one: "to stand still —not progressive" or, in other words, not going anywhere. In my approach to the subject for discussion, "How Missouri Stands on Health," I shall use that definition.

One of the sections participating in the First National Conference on Evaluation in Public Health, held at Ann Arbor, Michigan, on September 12-13, 1955, implied in their summary report that sometimes it may be necessary to limit evaluation to important specific areas of the total health program which are obviously weak or substandard in performance.

In my judgement the "sometimes it may be necessary" approach applies to the State of Missouri with obvious pertinency. This, then, is one of those times when it is necessary to ram home the fact that all is not well in the field of health and that, because of this very fact, the people of Missouri cannot any longer afford not to do what the people of many less prosperous states are and have been doing far better in the broad field of public health.

Prevention is the very essence of evaluation—the prevention of so much unnecessary illness and disability and premature death. The cost of neglect in this field is too great, not only in terms of human values, but of money as well.

It would be much more pleasant to emphasize the strong facets of Missouri's health program but that would not improve Missouri's health. As I have already indicated, my approach to the subject, "How Missouri Stands on Health," will be definitely one of planned pessimism or, more accurately, one of planned realism. As George Bernard Shaw put it, "if you cannot get rid of the family skeleton you may as well make it dance."

Even though evaluation from this point of view is not too interesting, or even too popular, it has merit in that it attempts to tell the truth—unpleasant as it may be to many people—about certain important health indices and it has the further potentially great advantage that it may lead to positive action. There is an old saying to the effect that things sometimes have to get worse before they get better. In the field of public health which must concern itself with the protection and promotion of the health of all of the people of Missouri we have unquestionably and with amazing perverseness complied with the first prerequisite of the adage previously referred to. We must now apply ourselves with all the effective intelligence and persistence we can bring to bear to the positive task of "getting better."

Please know that my role here this afternoon as the devil's advocate is in no manner whatsoever a criticism of the State Health Division. In fact it is quite the opposite. I personally know most of the people in the state and district offices. They are a dedicated, highly trained and competent group who form the hard core of public health workers so necessary to the proper functioning of any responsible official health agency. They need no defense but they do need a lot of help and support. They have done amazingly well with the limited resources available to them. My task, as I understand it, is to point up the fact that serious deficiencies do exist in the total health program of Missouri and that it is the responsibility of the people of Missouri and their elected officials to give the State Health Division the necessary support, mostly financial, to enable that Division to give all the people of Missouri, at least, effective minimal public health protection.

In order to cover as much ground as possible it was apparent that the use of a series of tables showing just where Missouri stands in certain specific and important indices of health performance, as compared to the other forty-seven states, offered the most effective way of presenting the answer to the query posed for discussion.

TABLE 1

MISSOURI STANDS 47TH IN PER CAPITA STATE APPROPRIATIONS TO STATE HEALTH DEPARTMENTS

(Source: P.H.S.—Most Recent Data)

State and Rank	*1956 Per Capita (cents)*	*1955 Per Capita (cents)*
1 Vermont	229.4	158.4
24 Oregon	61.4	56.4
47 Missouri	23.3	15.2*
48 Ohio	22.5	20.5
MEDIAN	60.4	56.5
AVERAGE	73.8	68.9

* Missouri ranked 48th in 1955.

Comments: The late Doctor Herman Biggs, of New York, one of our great public health states-

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Health Commissioner, City of St. Louis, Mo.

Presented at the annual meeting of the Missouri Public Health Association, in Kansas City, Missouri, June 1956.

men, said on repeated occasions that: "Public health is purchasable and that any community, within natural limitations, can determine its own death rate." It is also axiomatic that only those communities—state or local—that want the best in public health are likely to get it. It is quite apparent that all of the people of Missouri have not as yet felt any particular urgency in this matter, although some real progress has been made during the last few years. It is also obvious that the Missouri Division of Health must receive a larger percentage of the public tax dollar if it is to carry out the major responsibilities of any state health department as outlined by the American Public Health Association. Our own Missouri Public Health Association—"An organization for the promotion of the public health movement in Missouri"—should and must, through its state-wide membership, assume a much more active role in this area by doing all it can to see to it that the Health Division receives a substantial increase in its state appropriations. It can be predicted with certainty that the results which can come from this increase which will permit the State Health Division to meet its normal and reasonable obligations will be spectacular.

At this point I should like to make a serious proposal because what I am about to propose has had, in my considered judgement, a direct bearing on why the Health Division is not getting its fair, and I would use the words "prior share" in this instance, of the public tax dollar. My proposal, which now is definitely a recommendation—proposals invariably evolve into the latter—is that the marriage (a bad one to begin with) between public health and welfare shoud be dissolved as quickly and effectively as is possible. I realize that this involves an amendment to the State Constitution but the sooner it can be accomplish the better for public health and the State of Missouri. I know something about this incompatible marriage because the late Doctor Joseph Willett, then President of the Missouri Public Health Association, and myself, also representing the Missouri Public Health Association, along with the then president and other official representatives of the Missouri State Medical Association, appeared before a Senate House Committee (studying this part of the proposed new State Constitution) in complete and unequivocal opposition to the creation of a Department of Public Health and Welfare. To anyone familiar with the differences between health and welfare it does not require much intellectual foresight to know that a Department of Public Health and Welfare would not work. When the new constitution of Missouri was finally adopted there were only three states in these United States with such an organizational set-up—Idaho, Maine, with Missouri just added. Idaho finally got out from under, so that now only two states suffer from this unnatural marriage. The Missouri Department of Public Health and Welfare—it will be noted that even here public health precedes welfare—consists of three divisions: The Division of Health, The Division of Mental Diseases, and The Division of Welfare. How can the Division of Health which is charged with the tremendously less costly but far more important task of preventing disease and disability and premature death—prosaic and undramatic as it may seem to be—how can it compete with the everyday drama and urgency of a check from the Welfare Division or the hospitalization of the mentally ill? It cannot and never should be forced to compete for its share of the tax dollar in such an emotionally charged atmosphere. It is the difference between the undramatic and routine immunization of literally millions of people to prevent such diseases as smallpox, diphtheria-pertussis-tetanus and now polio, for example, and the relatively occasional but dramatic surgical operation. Which is the best way to invest the taxpayer's dollars—by preventing disease and disability and premature death, or by attempting to cure or rehabilitate after we have failed to apply known preventive measures in far too many instances? The answer is obvious. Indeed, if we tried to do the job today of keeping people well by treating and curing disease without cur present knowledge of preventive medicine and public health the situation would be hopeless. It would involve an expenditure of so large a fraction of the income of any state, city or county as to make the cure less attractive to the taxpayers than the disease.

That is why I say that public health should be divorced from welfare.

The Committee on Administrative Practice of the American Public Health Association under the chairmanship of Doctor Roscoe P. Kandle—the same Doctor Kandle who directed the Missouri Public Health Survey in 1951—this committee on November 14, 1955, approved the following statement on the place of health services in the structure of state government:

"Each state must provide for an independent state department of health with direct access to the governor, since to do otherwise is to sacrifice effectiveness and efficiency in health services and is not to the best interest of the people."

This statement represents the conclusion of the much longer complete statement. I have been advised that the complete statement of "The Place of Health Services in the Structure of State Government" was mailed to every state governor in the country.

Comments: Although Missouri ranks eighth in the per capita state appropriation to contiguous state health departments it ranks second, being exceeded only by Illinois, in per capita wealth. Both Arkansas and Tennessee, which rank eighth and seventh respectively in per capita wealth appropriate approximately two to three and one

TABLE 2

ARRAY OF PER CAPITA STATE APPROPRIATIONS TO STATE HEALTH DEPARTMENTS FOR MISSOURI AND CONTIGUOUS STATES. ALSO PER CAPITA WEALTH AND RANK FOR SAME STATES

State	**1956 Per Capita Appropriations (cents)*	*Rank*	***1954 Per Capita Wealth (dollars)*	*Rank*
Kentucky	83.0	1	1216	6
Tennessee	81.9	2	1212	7
Kansas	45.8	3	1689	3
Oklahoma	43.8	4	1466	5
Arkansas	42.6	5	979	8
Illinois	41.3	6	2155	1
Iowa	31.6	7	1667	4
Missouri	23.6	8	1747	2

* Source: P.H.S., Most Recent Data.
** Source: Office of Business Economics, U. S. Department of Commerce, 1954.

half times more than Missouri to their state health departments. The implications of these comparative data are obvious. The State of Missouri—meaning of course the people of Missouri—has ample wealth to support a first rate health department. Yet it has not done so. One wonders why. It may well be that we of the public health profession have not yet sold our people on public health.

In my opinion a more intelligent and practical explanation is, as I have previously indicated, that the welfare activities of the Department of Public Health and Welfare have seriously jeopardized the efficient functioning of the public health program by denying to the State Division of Health its fair share of the tax dollar.

TABLE 3

MISSOURI'S RANKING IN PER CENT OF TOTAL POPULATION COVERED BY VARIOUS TYPES OF LOCAL ORGANIZATIONS

(Source: P.H.S. Organization and Staffing for full time local health services—December 31, 1953)

State	*Rank*	*Per Cent Coverage by Type of Organization*				
		SINGLE COUNTY UNITS	CITY HEALTH DEPT.	LOCAL HEALTH DIST.	STATE HEALTH DIST.	NO ORGAN.
Alabama	1	100%	—	—	—	—
Maryland	1	61%	39%	—	—	—
North Carolina	1	59%	—	36%	5%	—
New Mexico	1	—	—	—	100%	—
Missouri	28	24%	36%	1%	33%	6%
New Hampshire	47	—	15%	—	—	—
Vermont	48	None of population covered by full-time local health organ.				

Comments: The most significant fact shown here is the high percentage of the total population of Missouri (33 per cent) served by so-called "state health districts." The Public Health Service defines a "state health district" as one organized either for providing direct local services or providing advisory or supervisory services to various types of local governmental units. In such districts control is vested in the state. State control of local health services is not good administrative practice and is in general frowned upon.

Doctor Roscoe Kandle, in his survey report on Public Health in Missouri (1951), made the following two pertinent statements about this practice:

1. "Long experience has repeatedly demonstrated the hopelessness of trying to do modern public health work through direct services from the state office, state district officer or nurses working alone with overwhelming case loads. State after state has tried these methods and failed in the long run. Missouri now has the machinery (Bill No. 280) to secure local health departments and this must be the method used if results commensurate with the money and effort expended are to be achieved."

2. "It has been repeatedly stated in this report that the surveyors, following the principles of good public health administration, believe firmly in the precept that a state health department should primarily exist to strengthen local services and should perform only those few direct services which are too technical or, for other reasons, cannot be practically carried out locally. Furthermore, there is ample experience to demonstrate that the provision of partial health services by the state personnel can seriously delay the development of good local health services because people feel that 'the state does it' and mistake partial service for real public health protection."

And I would add to these statements the late Doctor Joseph Mountin's sound advice that: "No attempt should be made to enter a field (public health) unless a reasonable concentration of service can be attained, since dilution of effort beyond a certain point amounts to nullification."

I labor this specific point on health coverage because it seems quite apparent, to me at least, that in this area alone Missouri can accomplish the most productive and at the same time the most spectacular results. These accomplishments, in my judgement, depend largely on two factors:

1. A real determination on the part of the people in the counties involved to pool their intellectual and tax resources in initiating measures to set up the appropriate type of local unit to provide effective minimal public health services for the population group determined upon.

2. A substantial increase—enough to be effective—in the state appropriation to the Health Division to enable it to furnish direct financial aid to county or multi-county units (district units) on a matching formula based on the financial status of the various local health units. Those units with less local tax resources would receive proportionately higher grants-in-aid from the state health department.

This proposed state program—the essence of the program is more money—would also concern itself with the recruitment and training of professional and technical personnel. The ever important question of adequate salaries must also be taken into account. The business world learned a long time ago that if one wants a job done, get the most competent people possible and pay them accordingly. Why not apply the same concept to the field of public health? What is more important than the prevention of disease, disability and premature death? These are important and realistic considerations in any approach to what constitutes an adequate salary.

TABLE 4

MISSOURI COMPARED WITH OTHER STATES IN SIGNIFICANT AREAS IN TUBERCULOUS CONTROL. RANK IN PER CENT OF GROUP "A" CASES REPORTED IN "MINIMAL STAGE"—45 STATES REPORTING

(Source: P.H.S.—Reported Tuberculosis Data: Calendar Year 1954)

State	*Rank*	*Percentage*
Alabama	1	30.7
Rhode Island	1	30.7
Missouri	42	13.5
Georgia	45	10.4
Continental United States	..	21.9

Comments: Now more than ever, because of the amazing results obtained by chemotherapy and new surgical procedures, it is imperative that we intensify our case finding activities. The effectiveness of any tuberculosis control program at the present time is in direct proportion to the number of "minimal cases" found and brought under prompt treatment. In this respect the State of Missouri has both a challenge and a great opportunity.

TABLE 5

MISSOURI COMPARED WITH OTHER STATES IN PERCENTAGE OF NEWLY REPORTED CASES OF TUBERCULOSIS FIRST KNOWN TO HEALTH DEPARTMENT BY DEATH CERTIFICATE—46 STATES REPORTING

(Source: P.H.S. Reported Tuberculosis Data: Calendar Year 1954)

State	*Rank*	*Percentage*
North Carolina	1	1.4
Rhode Island	1	1.4
Missouri	39	8.9
South Dakota	46	17.9
Continental United States	..	5.0

Comments: This item has long been recognized as a sensitive index of the effectiveness of case finding activities. The fact that a relatively large percentage of newly reported cases are first known to a health department from a death certificate or autopsy findings presents serious problems in tuberculosis control. It should be emphasized that practically 9 per cent of the newly reported active cases in Missouri in 1954 were never known as living cases. The Public Health Service estimated that these cases constitute about one fourth of all tuberculosis deaths during the calendar year 1954.

TABLE 6

TUBERCULOSIS DEATH RATES (ALL FORMS) PER 100,000 POPULATION—MISSOURI STANDS 38TH—48 STATES REPORTING

(Source: P.H.S. Reported TB Data—Calendar Year 1954)

State	*Rank*	*Death Rate*
Iowa	1	3.2
Missouri	38	12.3
Arizona	48	24.7
Continental United States	..	10.0

Comments: Tuberculosis deaths continue to decline throughout the country. Here again Missouri's performance cannot be considered good and calls for increased case finding activities along with prompt and adequate treatment facilities.

In St. Louis City at the present time we have approximately 600 cases of active tuberculosis under drug therapy on an ambulatory basis. Koch Hospital maintains an average daily census of about 600 patients. In effect, then, through our successful ambulatory treatment program, we are now able to effectively take care of at least 1,200 patients, whereas before the advent of the new drugs we were limited to the capacity of Koch Hospital—about 650 beds.

TABLE 7

ACCIDENTAL DEATH RATES (ALL CAUSES) BY STATES —1954

(Source: Accident Facts, 1955 Edition—National Safety Council)

State	*Rank*	*Death Rate per 100,000 Population*
Connecticut	1	39.8
Missouri	40	65.7
Nevada	48	128.9

Comments: Accidents as a cause of death rank fourth among the first ten causes of death. The further fact that home accidents alone rank ninth as a cause of death is a real concern of health departments. About 50 per cent of all accidents are classified as home accidents.

Home accidents are a legitimate field for health department activity and more and more states and cities are attacking this particular problem. It is obvious that Missouri has no effective program in this area of prevention. The table speaks for itself and suggests our future course of action. Public health nurses, educators, engineers and other environmental sanitation personnel all have a place in a home accident program. In fact, as Armstrong and others have pointed out, health departments contain all the elements needed to develop an effective home accident program. The

TABLE 8

MISSOURI'S DEATH RATES IN SPECIFIC IMPORTANT CATEGORIES RANKED WITH OTHER STATES

(Source: National Office of Vital Statistics—Calendar Year 1953)

Cause	*Rate*	*Rank*
Maternal deaths per 10,000 live births	6.0	31
Syphilis deaths per 100,000 population	5.9	47
Pneumonia deaths per 100,000 population	35.1	45
Tuberculosis deaths per 100,000 population	15.1	39
Infant death rate per 1,000 live births	27.8	29

problem is one of organization and administration within the health department.

Comment: These are unduly high rates which can and should be substantially reduced. The fact is that in each of these categories there is a body of knowledge which, if effectively and consistently applied, can bring about rather dramatic results.

SUMMARY

In conclusion I should like to paraphrase a notable statement contained in a paper entitled, "The Unfinished Job of Essential Public Health Services," delivered at the 75th annual meeting of the American Public Health Association by Doctor Haven Emmerson, probably the foremost living public health statesman. This statement, which seems eminently appropriate to the query posed by the subject: "How Missouri Stands on Public Health" is as follows:

If I were to be stricken thoughtless and voiceless tomorrow, today shall be given to a warning that, only when every person, every home, village, town or locality in the State of Missouri has provided, within the accepted duties and work of local government, public health services in a competent manner, shall we be free and just to each other. Only then can we of the Missouri Public Health Association, a state-wide professional conscience of preventive medicine, consider ourselves full-grown and mature.

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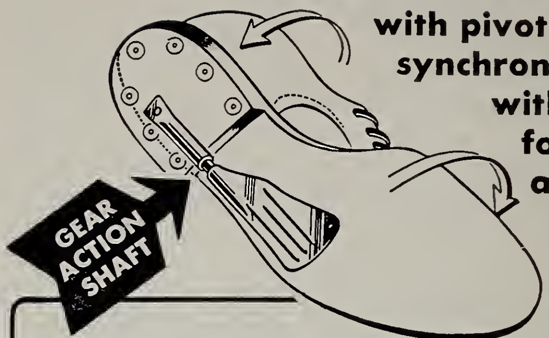

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1. Herrell, W. E., Erythromycin, Antibiotics Monographs, No. 1, p. 29, New York, Medical Encyclopedia, Inc., 1955. *Idem* p. 30.

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President's Page

Once each four years we have an opportunity to vote for a President of these United States. Those of us who do not exercise this right not only lose our vote but also, perhaps, our right to complain about the activities of our favorite candidate after he is elected.

Much has been said and written about apathy and indifference as being the greatest enemies of our long cherished freedoms. Some of the writings I have seen indicate that professional men are most apathetic about voting. For example, official election board reports in a large New York state community show that 28 per cent of physicians and 32 per cent of the dentists and lawyers did not vote in 1948.

Committees of doctors have been working this year for the candidates. Dr. Elmer Hess, immediate Past President of the A.M.A., is the leader of a professional group supporting Mr. Eisenhower. Dr. Evarts A. Graham of St. Louis is a member of a national committee which is working for the election of Mr. Stevenson.

Tuesday, November 6, is the day. Vote as you please, but please vote.

M.D.

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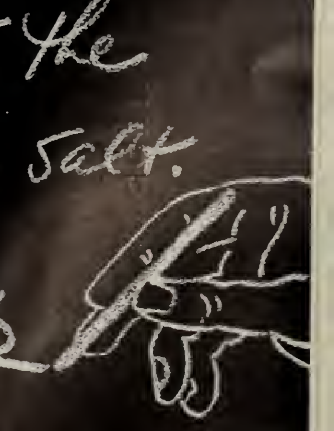

EDITORIALS

The Ford Foundation Grants

The Ford Foundation recently announced grants totaling $21,750,000 to strengthen instruction in the forty-four privately supported medical schools now in operation in the United States.

The grants are in the amount of $500,000 to each of forty-three four year institutions and $250,000 to the two year medical school at Dartmouth College, Hanover, N. H. They were authorized by the Foundation's board of trustees upon the recommendations of a special advisory committee headed by Dr. Lee DuBridge, president of the California Institute of Technology.

The advisory committee was set up by the Foundation to develop plans for distributing $90,000,000 which the Foundation appropriated last December to aid the instructional programs of the private medical schools.

The grants are to be held by the recipient institutions as invested endowment for at least ten years. During this time the income from the endowment may be expended for instructional purposes. Excluded from purposes of the grants are construction and research needs. After a ten year period the medical schools will be free to use the principal sum as well as endowment income.

In announcing the grants the Foundation indicated it expects to disburse the balance of the $90,000,000 appropriation during the current academic year.

Institutions receiving the $500,000 grants are:

Albany Medical College of Union University, Albany, N. Y.; Baylor University College of Medicine, Houston, Tex.; Boston University School of Medicine, Boston, Mass.; Bowman Gray School of Medicine, Wake Forest College, Winston-Salem, N. C.; University of Buffalo School of Medicine, Buffalo, N. Y.; Chicago Medical School, Chicago, Ill.; University of Chicago School of Medicine, Chicago, Ill.; Columbia University College of Physicians & Surgeons, New York, N. Y.; Cornell University Medical College, New York, N. Y.; Creighton University School of Medicine, Omaha, Neb.; Duke University School of Medicine, Durham, N. C.; Albert Einstein College of Medicine, Yeshiva University, New York, N. Y.; Emory University School of Medicine, Emory University, Ga.

Georgetown University School of Medicine, Washington, D. C.; George Washington University School of Medicine, Washington, D. C.; Hahnemann Medical College, Philadelphia, Pa.; Harvard University Medical School, Boston, Mass.; Howard University College of Medicine, Washington, D. C.; Jefferson Medical College of Philadelphia, Philadelphia, Pa.; Johns Hopkins Medical School, Baltimore, Md.; University of Louisville School of Medicine, Louisville, Ky.; Marquette University School of Medicine, Milwaukee, Wisc.; College of Medical Evangelists School of Medicine, Los Angeles, Calif.; Meharry Medical College School of Medicine, Nashville, Tenn.; University of Miami School of Medicine, Coral Gables, Fla.; New York Medical College, New York, N. Y.; New York University College of Medicine, New York, N. Y.; Northwestern University Medical School, Chicago, Ill.

University of Pennsylvania School of Medicine, Philadelphia, Pa.; University of Pittsburgh School of Medicine, Pittsburgh, Pa.; University of Rochester School of Medicine and Dentistry, Rochester, N. Y.; St. Louis University School of Medicine, St. Louis, Mo.; University of Southern California School of Medicine, Los Angeles, Calif.; Stanford University School of Medicine, San Francisco, Calif.; Stritch School of Medicine of Loyola University, Chicago, Ill.; Temple University School of Medicine, Philadelphia, Pa.; Tufts University School of Medicine, Boston, Mass.; Tulane University School of Medicine, New Orleans, La.; Vanderbilt University School of Medicine, Nashville, Tenn.; Washington University School of Medicine, St. Louis, Mo.; Western Reserve University School of Medicine, Cleveland, Ohio; Woman's Medical College of Pennsylvania, Philadelphia, Pa.; Yale University School of Medicine, New Haven, Conn.

Farm-City Week

The second annual Farm-City Week will be observed November 6 to 22. The broad purpose of this observance is "to build better relationships between town and country neighbors." Kiwanis International will again spearhead activities and act as coordinators and organizations and individuals may contact local clubs with assistance and suggestions.

The American Medical Association, knowing that health and medical care are of similar interest in country and town, suggests that local medical societies become active on planning committees. Among suggestions of what the medical society can contribute, the American Medical Association suggests health programs for city and rural youth groups, addresses by society members to civic groups, radio and TV interviews and discussions, tours of hospitals and medical facilities, and vocational guidance programs in high schools.

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[1] Posner, A. C., *et al.;* Further Observations on the Use of Tetracycline Hydrochloride in Prophylaxis and Treatment of Obstetric Infections, *Antibiotics Annual* 1954-55, pp. 594-598.

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Missouri Medical Meetings

Missouri State Medical Association Annual Session, Kansas City, March 31, April 1, 2, 3, 1957.
St. Louis Pediatric Society—second Thursday of each month, September through May at Medart's Restaurant, 8:00 p.m.

Component Society Meeting Dates

Audrain County Medical Society—third Monday of each month.
Barton-Dade County Medical Society—third Wednesday of each month.
Benton County Medical Society—meets only on call.
Boone County Medical Society—first Tuesday of each month.
Buchanan County Medical Socitey—first Wednesday of each month.
Butler-Ripley-Wayne County Medical Society—first Wednesday of each month.
Callaway County Medical Society—third Thursday of each month.
Cape Girardeau County Medical Society—first Monday of each month.
Chariton-Macon-Monroe-Randolph County Medical Society—second Thursday of each month September through May.
Clay County Medical Society—last Tuesday of each month.
Clinton County Medical Society—meets only on call.
Cole County Medical Society—third Tuesday of each month.
Cooper County Medical Society—first Monday after the 15th of each month.
Dallas-Hickory-Polk County Medical Society—first Wednesday of each month.
Dunklin County Medical Society—third Tuesday of each month.
Franklin-Gasconade-Warren County Medical Society—last Tuesday of each month at the St. Francis Hospital, Washington, at 12:30 p.m.
Grand River Medical Society (Caldwell-Carroll-Livingston, Grundy-Daviess, Harrison, Linn, Mercer, DeKalb)—second Thursday of each month.
Greene County Medical Society—fourth Friday of each month.
Henry County Medical Society—meets only on call.
Holt County Medical Society—meets only on call.
Howard County Medical Society—meets only on call.
Jackson County Medical Society—fourth Tuesday of each month execpt June, July and August, at auditorium of General Hospital No. 1.
Jasper County Medical Society—second Tuesday of each month, September through May.
Jefferson County Medical Society—meets only on call.
Johnson County Medical Society—meets only on call.
Laclede County Medical Society—second Monday of each month at 6:00 p.m., at the Louise Wallace Hospital, Lebanon.
Lafayette-Ray County Medical Society—second Tuesday of each month at 7:30 p.m., at the Victory Cafe, Lexington.
Lewis-Clark Scotland County Medical Society—meets only on call.
Lincoln-St. Charles County Medical Society—third Thursday of each month.
Marion-Ralls-Shelby County Medical Society—fourth Tuesday of each month. 7:30 p.m.
Miller County Medical Society—meets only on call.
Mineral Area County Medical Society (St. Francois-Iron-Madison-Washington-Reynolds-Ste. Genevieve)—fourth Thursday of each month.
Moniteau County Medical Society—second Thursday of each month.
Newton County Medical Society—meets only on call.
Nodaway-Atchison-Gentry-Worth County Medical Society—first Monday in February, April, October and December.
North Central Counties Medical Society (Adair-Schuyler-Knox-Sullivan-Putnam)—meets only on call.
Ozarks Medical Society (Barry-Lawrence-Stone-Christian-Taney)—second Tuesday of each month September through June.
Pemiscot County Medical Society—third Thursday of each month.
Perry County Medical Society—second Thursday of each month.
Pettis County Medical Society—third Monday each month September through May.
Phelps-Crawford-Dent-Pulaski-Maries County Medical Society—fourth Thursday of each month.
Pike County Medical Society—third Tuesday of each month.
Platte County Medical Society—meets only on call.
St. Louis County Medical Society—second and fourth Wednesday of each month.
St. Louis Medical Society—first, third and fifth Tuesday of each month October through May.
Semo County Medical Society (Stoddard, New Madrid, Mississippi, Scott)—third Wednesday of each month September through May.
South Central Counties Medical Society (Howell-Oregon-Texas-Wright-Douglas-Ozark)—fourth Wednesday of each month.
Vernon-Cedar County Medical Society—meets only on call.
Webster County Medical Society—meets only on call.
West Central Missouri Society—second Thursday of each month.

Musings of the Field Secretary

The Medical School of the University of Missouri has moved into its new home (and it's a beauty) where plenty of medical education activities are in full swing. One of these activities has to do with postgraduate offerings for physicians in private practice.

A new Postgraduate Medical Education Committee has been appointed and is working with similar committees of the Missouri State Medical Association and the Missouri Academy of General Practice in developing PG programs at the new Missouri University Medical Center as well as suggested programs for county and district medical society meetings. It is felt that the offering of postgraduate programs at the Medical Center, where actual patients may be used in the discussions, will add, in many cases, more practical aspects to the presentations. In this respect, Correlative Clinics (wet clinics to me) conducted by various clinical divisions of the School of Medicine will be offered. These will deal, in each instance, with the problem of a particular patient under observation in the Medical Center Hospital.

Clinical Pathological Conferences are to be offered regularly at the Medical Center and will be alternated with the Correlative Clinics. On two Thursday afternoons each month, beginning in November, 1956, there will be offered two hour teaching sessions from 3:00 to 5:00 p.m. The first hour will be a panel discussion, guest speaker or special presentation, and the second hour will present either a CPC or Correlative Clinic. Members of the Missouri Academy of General Practice who attend these two hour sessions are entitled to Category I Study Credit under Academy requirements.

Doctors who attend any of the aforementioned afternoon sessions, may, if they desire, attend morning grand rounds of the Medical Department.

The schedule for the sessions indicated are November 8, 29; December 6, 13; January 10, 24; February 14, 28; March 14, 28; April 11, 25, and May 9, 23. Doctor, you are invited.

The Annual Clay County Medical Society Clinical Conference will be held at the Elms Hotel, Excelsior Springs, Thursday afternoon, November 1. The detailed program is published elsewhere in this issue. All members of the Missouri State Medical Association and their wives are invited to attend all or any part of the Conference. A special program has been arranged for doctors' wives running concurrently with the program of the Clinical Conference.

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Vitamin B_2	.79 mgs.
Niacin	9 mgs.

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"Many older persons suffer from hypoproteinemia. This may manifest itself clinically as fatigue, secondary anemia, edema, or lowered resistance to infections." N. Jolliffe, F. F. Tisdall, P. R. Cannon; Clinical Nutrition, Paul B. Hoeber, Inc., 1950, p. 681.

(Complete formula together with amino acid, vitamin and mineral assays will be sent on letterhead requests.)

News

A silver tray, appropriately inscribed, was presented to **Carl F. Vohs**, M.D., St. Louis, by the Board of Trustees of Group Hospital Service at a meeting on September 26 at the Chase Hotel, St. Louis. It was in appreciation for his service on the Board from 1938 and on the executive committee for many years.

The Fitzsimmons-Battenfeld Post No. 8 of the American Legion, Kansas City, recently honored **Rush E. Castelaw**, M.D., Kansas City, for his work in the Legion.

Among fourteen physicians and surgeons awarded Mississippi Valley Medical Society fellowships at the society's recent meeting were **James Barrett Brown**, M.D., and **Alvin H. Diehr**, M.D., St. Louis.

Guests at a luncheon for five Mexican physicians visiting in Jefferson City on September 14 were **Earl L. Loyd**, M.D., **L. David Enloe**, M.D., and **Henry Guhleman, Jr.**, M.D., Jefferson City.

The medical staff of St. Joseph's Hospital, Kirkwood, recently named **Donald O. Burst**, M.D., president of the staff. **Francis J. Catanzaro**, M.D., was named president-elect, and **Charles C. Drace**, M.D., secretary-treasurer.

Succeeding Charles F. Blankenship, M.D., Lewis H. Hoyle, M.D., has been appointed medical director of the Kansas City Regional office of the Department of Health, Education and Welfare.

The fiftieth anniversary session of the Southern Medical Association will be held in Washington, D. C., November 12 to 15.

Among guest clinicians on a closed circuit telecast from Tufts University School of Medicine and the New England Medical Center in Boston, presented by the Upjohn Company, on October 17, was **Lauren V. Ackerman**, M.D., St. Louis.

The medical staff of Deaconess Hospital, St. Louis, recently elected **Edward M. Cannon**, M.D., president; **Louis P. Kirtz**, M.D., vice president and reelected **Birkle Eck**, M.D., as secretary.

The Governor recently appointed **Edward Crites**, M.D., Sedgewickville, as coroner of Bollinger County.

The *Springfield News*, on August 19, carried a picture and story about the life and work of **Leroy Simmons**, M.D., Sarcoxie.

The Medical Society of Haiti, at Port-au-Prince, will have as speaker on November 8, **E. Lee Dorsett**, M.D., St. Louis.

The Hickman High School at Columbia was presented a plastic heart model by the Boone County Heart Council which also gave books on the heart to the county library. **Hugh E. Stephenson**, M.D., Columbia, made the presentation to the school as president of the Council.

The Wyota Business and Professional Women's Club, Lebanon, had as their speaker on August 28 **H. W. Carrington**, M.D., Lebanon.

Maj. Gen. Paul I. Robinson has been appointed executive director of the dependents' civilian medical care program. Dr. Robinson is a graduate of Washington University School of Medicine.

A member of the government advisory committee to develop methods of providing improved hospital care at lower cost is **Robert Elman**, M.D., St. Louis.

Medical uses of the atom were demonstrated to the Springfield Rotary Club on September 4 by **F. T. H'Doubler, Jr.**, M.D., Springfield, using Mr. John Buckner, Executive Secretary of the Greene County Medical Society, to assist.

B. M. Stuart, M.D., Boonville, has been appointed to serve as Councilor of the Association from the Fifth Councilor District to fill the unexpired term of **James W. Allee**, M.D., Columbia, who is moving to Treasure Island, Florida. Dr. Stuart will serve until the next session of the House of Delegates.

NEW MEMBERS

Armstrong, Gene F., M.D., 830 Argyle Building, Kansas City. Jackson County Medical Society.

Burkey, Jordan W., M.D., Professional Building, Springfield. Greene County Medical Society.

Gauer, Robert J., M.D., 4228 Montgall Avenue, Kansas City. Clay County Medical Society.

Logen, John T., M.D., 2502 Ashland Avenue, St. Joseph. Buchanan County Medical Society.

McMurtry, Leonard K., M.D., 805 West Reed Street, Moberly. Chariton-Macon-Monroe-Randolph Counties Medical Society.

Moruzi, Alexandre Demetrio, M.D., 1002 Argyle Building, Kansas City. Jackson County Medical Society. (Associate Member)

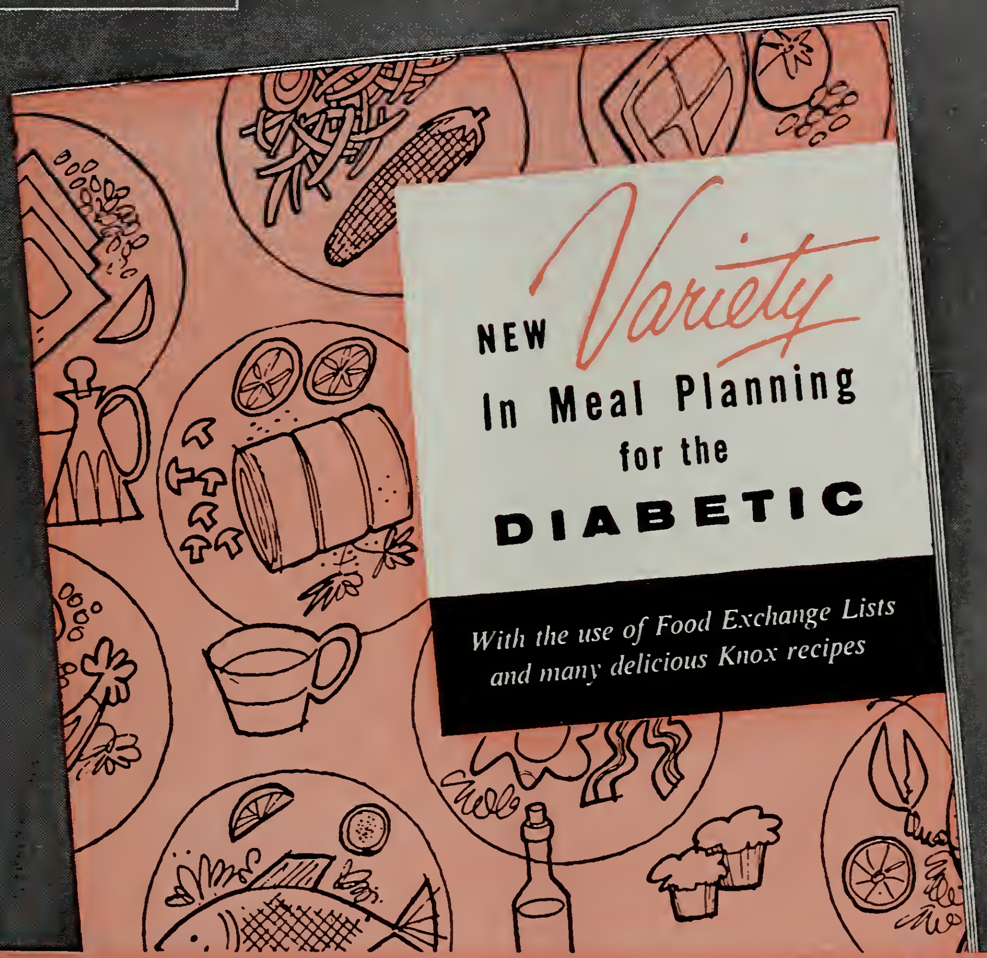
Riffel, Gordon William, M.D., 307 East Benton Street, Windsor. Henry County Medical Society.

Tiffany, D. E., M.D., Box 175, Mountain View. South Central Counties Medical Society.

Walker, Lionel Elcan, M.D., 509 North Harris Street, Willow Springs. South Central Counties Medical Society.

Williams, Anderson James, Jr., M.D., 2311 East Nineteenth Street, Kansas City. Jackson County Medical Society.

KNOX Protein Previews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DIABETIC
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Although more than 50% of diabetics can be managed with proper diet, continued success is dependent upon proper motivation of patients. Determination to abide by dietary restrictions is also important for the diabetic being managed with insulin.

The new Knox booklet "New Variety in Meal Planning" has been prepared to help the physician enlist the patient's enthusiasm for dietary measures and to help maintain this enthusiasm. It explains the importance of diet to the diabetic, shows him how to use the newest dietary advance —Food Exchange Lists[1]—and then describes how to provide tasty variety with 14 pages of tested, diabetic recipes.

"New Variety in Meal Planning" makes no attempt to prescribe a system of treatment. It shows how the recipes described may be used to good advantage in practically any system of diabetic management. If you would like a supply for your practice, use coupon below.

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[1] Developed by the U. S. Public Health Service assisted by committees of The American Diabetic Association, Inc. and The American Dietetic Association.

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Councilor District News

FIRST COUNCILOR DISTRICT

DONALD M. DOWELL, CHILLICOTHE, COUNCILOR

Grand River Medical Society

The Grand River Medical Society met September 13 at the Strand Hotel, Chillicothe. About fifty attended the dinner, including members, Auxiliary members, drug representatives and other guests. After dinner, the Auxiliary retired to their room, where, we understand, they had an interesting program presented by Dr. George W. Forman, St. Joseph.

The scientific program was presented by Dr. Ned D. Rodes, chief surgeon, Ellis Fischel Cancer Hospital, Columbia, who discussed "The Management of Gastrointestinal Tract Hemorrhage from the Surgical Viewpoint." This was an interesting subject and was well presented.

Dr. E. W. Allen, Carrollton, was appointed by President Dixon as Chairman of the Program Committee to replace Dr. John Martin who recently moved to St. Joseph. Recommendations of the Election Committee were accepted by the Society.

There being no further business, the Society adjourned.

E. A. DUFFY, M.D., *Secretary*

SECOND COUNCILOR DISTRICT

W. F. FRANCKA, HANNIBAL, COUNCILOR

Chariton-Macon-Monroe-Randolph County Medical Society

The Chariton-Macon-Monroe-Randolph County Medical Society held a dinner meeting, Thursday night, September 13, in the Woodland Hospital in Moberly.

The scientific program for the evening was devoted to a discussion of "Heart Lesions Amenable to Surgery" by a panel of four physicians from St. Louis University School of Medicine. Moderator of the panel was Dr. James G. Janney, Jr. The other members of the discussion group were Dr. James L. Mudd, Dr. Donald W. Bussmann and Dr. Mary Davis.

Deepest sympathy of the Society was expressed at the death of Dr. Wallace Petty, District Health Officer from Macon.

During the business session, Dr. L. K. McMurtry, newly appointed surgeon in charge of the Wabash Hospital in Moberly, was unanimously voted into membership in the Society.

At the request of Dr. Carl Vohs, President of the Missouri State Medical Association, a special committee of the Society was appointed to study the health problems of the school age child and to work with school authorities in whatever ways seem appropriate.

A good attendance of Society membership was present at this first meeting of the fall sessions.

ROBERT H. YOUNG, M.D., *Secretary*

FIFTH COUNCILOR DISTRICT

BYRON M. STUART, BOONVILLE, COUNCILOR

Audrain County Medical Society

The Audrain County Medical Society held a joint dinner meeting with the Callaway and Montgomery County Medical societies, Monday night, September 17, in the Pilot Lounge, Air Park Motel, Mexico.

The meeting was called to order by the Secretary, Dr. Ed S. Wallace. The minutes and treasurer's report of the previous meeting were read and approved.

A motion was made by Dr. Thomas L. Dwyer that the Audrain County Medical Society meet on the third Monday rather than on the fourth Monday of each month. Motion was seconded by Dr. Leonard L. Davis and approved by majority vote.

Robert Dean Woolsey, M.D., neurosurgeon, St. Louis, was the guest speaker and discussed "Diagnosis and Treatment of Acute Head Injuries."

The following doctors were present: Leonard L. Davis, M.D., Thomas L. Dwyer, M.D., Kathryn C. Epple, M.D., Lawrence K. Epple, M.D., Ernest S. Gantt, M.D., Benjamin N. Jolly, M.D., William H. Jolly, M.D., Harold K. Lankford, M.D., David M. Rouse, M.D., Ed S. Wallace, M.D., Alfred K. Baur, M.D., Tom Brewer, M.D., R. N. Crews, M.D., Harold Freund, M.D., James E. Hill, M.D., E. C. Kepler, M.D., Stan Knotts, M.D., Wm. J. Stewart, M.D., and Robert Dean Woolsey, M.D.

As there was no further business, the meeting adjourned at 11:00 p.m.

ED S. WALLACE, M.D., *Secretary*

SIXTH COUNCILOR DISTRICT

C. G. STAUFFACHER, SEDALIA, COUNCILOR

West Central Missouri Medical Society

The West Central Missouri Medical Society and its Woman's Auxiliary met at Judy's Cafe, Nevada, for a dinner meeting on Thursday night, September 13. A social hour preceded the dinner and program.

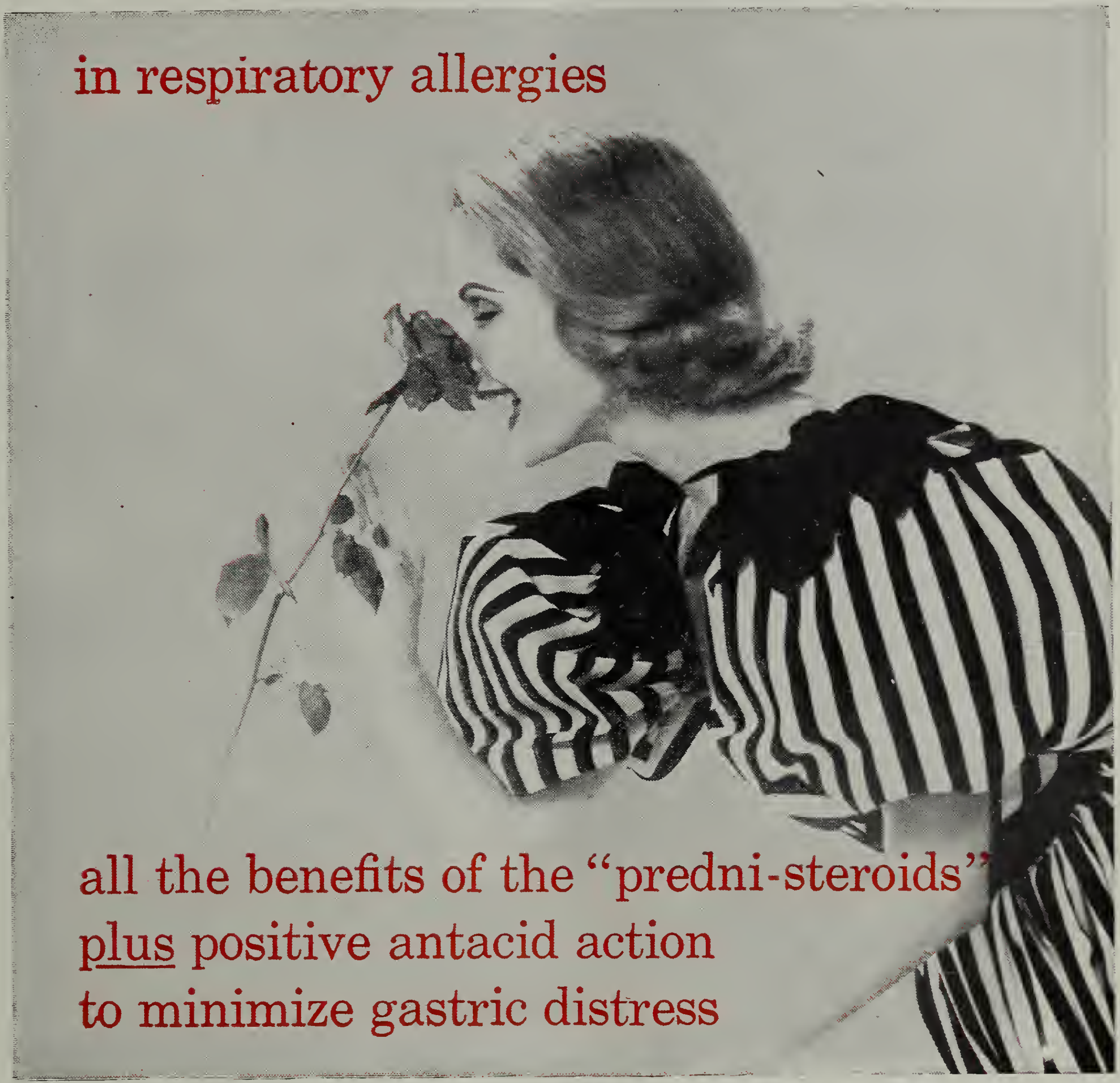
Dr. Louis A. Scarpellino, radiologist, Kansas City, spoke on "X-ray Diagnosis of Gastrointestinal Lesions."

L. P. MCCANN, M.D., *Secretary*

Henry, Johnson, Pettis, Saline, Lafayette-Ray and Adjacent County Medical Societies

A joint dinner meeting of the Henry, Johnson, Pettis, Saline, Lafayette-Ray and adjacent county medical societies and the doctors' wives was held Wednesday night, September 19, at Arrow Rock Tavern.

The festivities began with an enjoyable social hour, then one of the tavern's renowned dinners, followed by the scientific program, which presented William A. Sodeman, M.D., professor of medicine and department head, University of Missouri Medical School, who discussed "Fever of Undetermined Origin."


in respiratory allergies
all the benefits of the "predni-steroids"
plus positive antacid action
to minimize gastric distress

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Clinical evidence[1,2,3] indicates that to augment the therapeutic advantages of prednisone and prednisolone, antacids should be *routinely* co-administered to minimize gastric distress.

References: 1. Boland, E. W., *J.A.M.A.* 160:613 (February 25) 1956. 2. Margolis, H. M. *et al.*, *J.A.M.A.* 158:454 (June 11) 1955. 3. Bollet, A. J. *et al.*, *J.A.M.A.* 158:459 (June 11) 1955.

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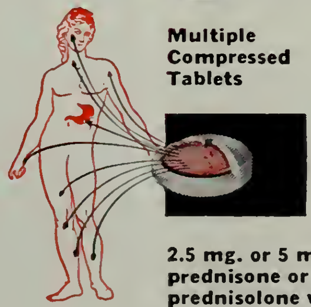

Dr. Sodeman was the speaker.

The meeting was well attended.

Sixty people were present for this pleasant occasion. The Saline County Medical Society served as host making all necessary local arrangements for the meeting.

Dr. Ray Hollingsworth, Clinton, who has been serving for sometime as chairman for these joint meetings, appointed a committee composed of the presidents of the joint societies and requested that they select a new chairman to be voted on at the next meeting of the group which is to be in Lexington on Wednesday night, November 14.

Ralph H. Jones, M.D., *Secretary*
Saline County Medical Society

EIGHTH COUNCILOR DISTRICT

B. E. DeTAR, JOPLIN, COUNCILOR

District Meeting

A meeting of the Eighth Councilor District of the Missouri State Medical Association was held at Carthage on Thursday afternoon and evening, September 20. The afternoon session was devoted to golf, played at the Carthage Country Club course.

Six foursomes took advantage of the opportunity offered by a beautiful afternoon to absorb the wonders of nature as offered by the "wide open spaces" game of golf.

The evening session, attended by more than fifty doctors over the district, consisted of a pleasant social hour, dinner and then a discussion on some of the problems confronting the profession at this time.

The principal talk of the evening was given by James R. McVay, M.D., Kansas City, who is a member of the Board of Trustees of the A.M.A. and a delegate

Golf was enjoyed in the afternoon.

Carthage Country Club was host to the golfers.

Dr. McVay was principal speaker.

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The audience was attentive.

from the Missouri State Medical Association to the A.M.A. Dr. McVay discussed the various services of the A.M.A., which are offered to the public and to state and national medical societies through the various councils and committees. His discussion was interesting and quite informative. Following his formal presentation, a general discussion period was participated in by a number of those present, including Dr. McVay, Dr. W. S. Sewell, Springfield, President-elect of the Missouri State Medical Association, and Mr. T. R. O'Brien, Executive Secretary of the Missouri State Medical Association.

B. E. DeTar, Sr., M.D., *Councilor*

NINTH COUNCILOR DISTRICT

J. H. SUMMERS, LEBANON, COUNCILOR

South Central Counties Medical Society

The South Central Counties Medical Society met for dinner Wednesday night, September 20, at the Memorial Hospital in Mountain View, with the following members and visitors present: Dr. and Mrs. D. E. Tiffany, Mountain View; Dr. H. W. Miller, Dr. and Mrs. L. E. Walker and Dr. and Mrs. M. B. Perkins, Willow Springs; Dr. and Mrs. R. W. Denney and Dr. A. C. Ames, Mountain Grove; Dr. and Mrs. M. L. Fowler, Dr. and Mrs. Rollin H. Smith and Dr. and Mrs. J. N. Wiles, West Plains; Dr. and Mrs. A. T. Walker, Mammoth Springs, Arkansas; Dr. and Mrs. C. W. Cooper, Thayer and Dr. Warford Johnson, Springfield.

After dinner, the ladies were entertained by the Sisters of the hospital management while the meeting was called to order for the program by the president, Dr. Wiles, and the minutes of the last meeting were read and approved.

The censors then reported on the application of Dr. L. E. Walker, and he was elected to membership unanimously.

A letter was read from Dr. Carl F. Vohs, President of the Missouri State Medical Association, suggesting that the Society "appoint a committee to study the health problems of the school age child in our community and to work with the school authorities in whatever ways seem appropriate," and the president appointed Drs. Connor, Fowler, Cooper and Spears as such a committee.

There was some discussion of the question of a fee schedule, but it was left over for a later meeting while the members study some literature in hand on the subject.

Dr. Johnson then spoke on "Spontaneous Pneumothorax" and showed some films of a case recently treated here.

Dr. Wiles expressed the thanks and appreciation of the Society to Dr. Johnson and to the Sisters of the hospital management for their hospitality. The meeting adjourned to meet in West Plains on October 24.

A. C. AMES, M.D., *Secretary*

TENTH COUNCILOR DISTRICT

BEN M. BULL, IRONTON, COUNCILOR

Mineral Area County Medical Society

Francis X. Paletta, M.D., plastic surgeon, St. Louis, spoke at a meeting of the Mineral Area County Medical Society on Thursday night, September 27, in the Clinic Building, State Hospital No. 4, Farmington. The subject of his discussion was "The Burned Hand." This practical subject was presented in an interesting and effective manner.

A. G. KARRAKER, M.D., *Secretary*

DEATHS

Glasco, Loren A., M.D., Urbana, a graduate of the Keokuk College of Physicians and Surgeons, 1910; honor member of the Dallas-Hickory-Polk County Medical Society; aged 70; died August 30.

Baker, Cecil H., M.D., St. Louis, a graduate of St. Louis University School of Medicine; member of the St. Louis Medical Society; aged 69; died September 5.

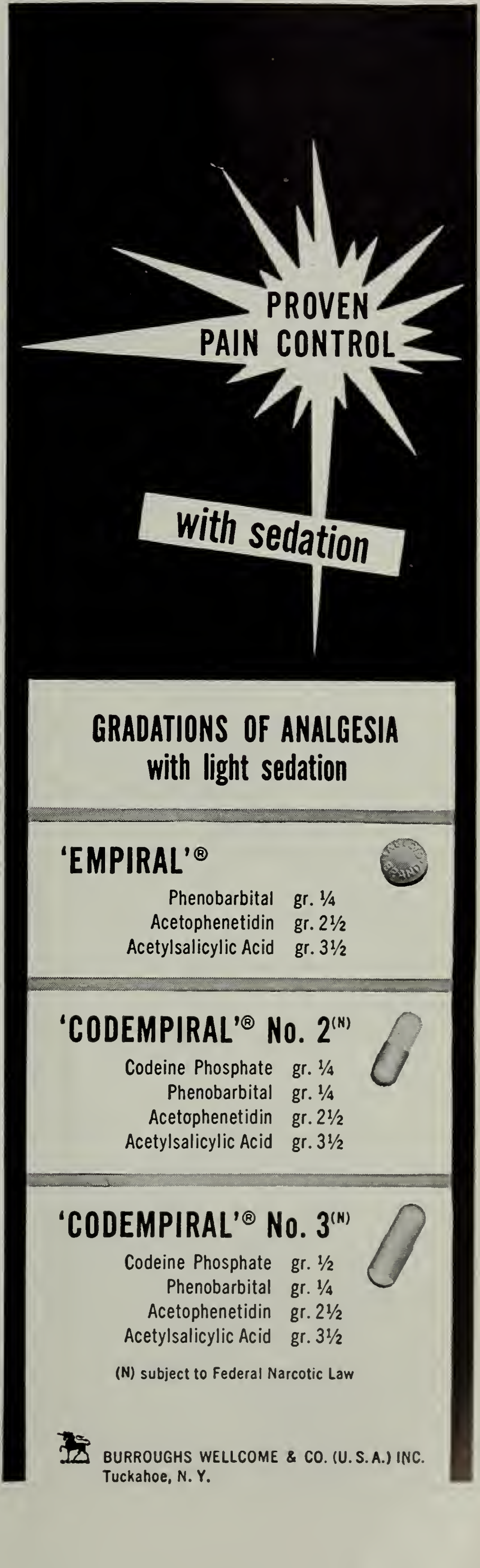
North, William R., M.D., Nokomis, Florida, a graduate of Beaumont Medicine College; honor member of St. Louis County Medical Society; aged 80; died September 5.

Elliott, B. Landis, M.D., Kansas City, a graduate of Washington University School of Medicine, 1919; member of the Jackson County Medical Society; aged 66; died September 8.

Petty, Wallace S., M.D., Macon, a graduate of the Kansas City Medical College, 1908; member of the Chariton-Macon-Monroe-Randolph County Medical Society; aged 69; died September 9.

Beil, J. Wallace, M.D., Kansas City, a graduate of the University Medical College of Kansas City, 1901; honor member of the Jackson County Medical Society; aged 81; died September 22.

Lapp, John G., M.D., Kansas City, a graduate of the University Medical College of Kansas City, 1897; honor member of the Jackson County Medical Society; aged 86; died September 23.



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Acetophenetidin gr. 2½
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The Council

The Council met at the Coronado Hotel, St. Louis, on July 7, 8, 1956, with W. F. Francka, M.D., Hannibal, Chairman, presiding. Those present were: Drs. Francka; Donald M. Dowell, Chillicothe; Joseph C. Creech, Troy; C. G. Stauffacher, Sedalia; Ralph Perry, Kansas City; B. E. DeTar, Joplin; Ben M. Bull, Ironton; Carl F. Vohs, St. Louis; E. Royse Bohrer, Jefferson City; W. S. Sewell, Springfield; Durward G. Hall, Springfield; Joseph C. Peden, St. Louis; Daniel B. Landau, Hannibal; Thomas Thale, St. Louis; Henry Allen, St. Louis; James R. Amos, Jefferson City; Messrs. John W. Noble, Kennett; John Buckner, Springfield; W. H. Bartleson, Kansas City; Lemoine Skinner, Jordan Singleton, Raymond McIntyre, Tom O'Brien, St. Louis.

V.A. Contract

The renewal of the contract with the Veterans Administration on home town care was discussed and on motion of Dr. Sewell, it was voted to renew the contract.

Treasurer's Report

The Treasurer's report was read, it indicating that the Association was in satisfactory financial condition. On motion of Dr. Bohrer, the report was accepted.

Field Secretary's Report

Mr. McIntyre reported that there had been fewer contacts from young physicians wishing locations in Missouri, however, there have been physicians located in Mountain View, Marceline, Campbell, Rolla, Tipton, Jefferson City, Shelbina, Ballwin, Valley Park, Salem, Monett, Caruthersville, Louisiana, Eldon, Marble Hill, Marshall and Sedalia. He reported on hospital construction: construction begun on 31 bed hospital in Albany; Eldon seeking funds for hospital; Boone County Hospital to be expanded from 82 to 250 beds; Cassville Hospital closed; Ray County Hospital of 35 beds to be completed the middle of September; Sisters' Hospital in St. Joseph raising money to expand; Methodist Hospital of St. Joseph had bought Mercy Hospital, building new wing of 28 beds; Fairfax Hospital recently completed an addition; Ste. Elizabeth Hospital in Hannibal is expanding; Jefferson County Hospital to be completed by January 1; Jefferson City is to build new hospital; Rolla is adding a floor to the hospital; Mountain View Hospital is now under a Catholic order; new hospital being contemplated at Brookfield; a campaign for a hospital at Sweet Springs is in process; contract for a hospital in West Plains is expected to be let in the late fall; a new 45 bed addition is being planned for the Independence Sanitarium and Hospital; 14 beds are being added to the Excelsior Springs Hospital; a 100 bed hospital being constructed in North Kansas City; 79 beds being added to the Southeast Hospital at Cape Girardeau; Wright Memorial Hospital at Trenton is adding 35 beds; promotion of a new hospital at St. Charles is underway; Bothwell Hospital at Sedalia is planning expansion, as well as Burge Hospital in Springfield; Freeman in Joplin and the Callaway County Hospital at Fulton. Meetings since the last Council meeting were reviewed. On motion of Dr. Stauffacher, the report was accepted.

A.M.A. Report

Dr. Hall reported on the 1956 session of the American Medical Association, presenting copies of his report to members of the Council. Dr. Peden called attention to the Student A.M.A.'s activity in raising a loan fund for medical students who need financial aid and the recommendation of a reference committee that the Board of Trustees of A.M.A. give to this fund. He said it was stressed at the session that doctors must retain an active interest in prepayment plans. He also called attention to the fact that this is Dr. McVay's last year of his term on the Board of Trustees. It was felt that some special activity of the Missouri delegates was indicated and on motion of Dr. Sewell, it was voted that hospitality be extended at the Seattle or New York session. (A complete report of Delegates to the A.M.A. session was published in Missouri Medicine, in the September issue, page 782.)

Legislation

H.R. 7225 was discussed and a letter from the A.M.A. calling attention to the new provision of a separate fund was read. Mr. O'Brien read letters that had been written to Senators Hennings and Symington and asked that Councilors write immediately and ask other physicians to do so. H.R. 9429 was discussed, it being pointed out that regulations have not as yet been issued as to how the Defense Department will handle this problem. On motion of Dr. Sewell, it was voted to ask members of the Committee on Medical Economics to attend a meeting in Chicago on July 23 and 29 at which this will be discussed.

Preceptor Program

The establishment of the preceptorship program of the University of Missouri was reviewed, the Council having recommended that the University establish such a program and be responsible for it, the Association furnishing lists of physicians from whom preceptors may be selected. It was announced that preceptees are now with Drs. J. H. Trolinger, Jackson; P. V. Siegel, Smithton, and Kenneth Glover, Mount Vernon. Seven students have elected to take this program and a sufficient number of preceptors have agreed to take students. It was felt that selection of further physicians for this could be delayed until a later time. Mr. McIntyre reported on visits to the three physicians serving as preceptors at the present time and that it was quite successful.

Doctors Draft

Dr. Henry Allen reported that in testimony given by Dr. Rusk, it was said that in order to defer 500 interns for internships, it would be necessary to call physicians in categories 1, 2 and 3; that in 1957 the need can be met and that probably after that time there may be no Doctors Draft law.

Indigent Care Study

The report on the indigent care survey, made at the last Council meeting, was reviewed in which it was brought out that the survey was inadequate but pointed up the need for further study. Mr. O'Brien called attention to a Vendor act which some ten states have

Why wine in Anorexia?

It has been popularly held that various types of alcoholic beverage are appetite stimulants, but objective laboratory investigations have clearly shown that alcohol itself, under controlled conditions, acts as a depressant to appetite.[1, 2]

Wine, however, the classic beverage of moderation, used as an aperitif, has been found to exert a profound stimulating effect on appetite and on the ability of both normal and anorexic patients to detect faint odors.[3] Goetzl and his co-workers have attributed this effect to such wine components as tannic acid, tartaric acid and acetic acid.[4, 5]

In actual clinical trials, Goetzl has reported the successful use of dry wines in increasing not merely the appetite, but also the food intake of patients suffering from anorexia. In one study on the appetite-stimulating action of wine, the average daily caloric intake in a substantial group of anorexic patients was increased from an average of 773 to 1228 calories.[6]

The above excerpts are taken from the brochure "Uses of Wine in Medical Practice" which describes the results of recent laboratory and clinical research on the medical attributes of wine. Herein are reported the latest findings on the value of wine as a stimulant to flagging appetite, as an aid to digestion, as a vasodilator, as a daytime and night-time sedative.

A copy of the brochure is available to you—at no expense—by writing to: Wine Advisory Board, 717 Market Street, San Francisco, California.

1. Margulies, N.R.; Irvin, D.L., and Goetzl, F.R.: Permanente Found. M. Bull. **8**:1 (Jan.) 1950.
2. Irvin, D.L.; Ahokas, A.J., and Goetzl, F.R.: Permanente Found. M. Bull. **8**:97 (Oct.) 1950.
3. Goetzl, F.R.: Permanente Found. M. Bull. **8**:72 (April) 1950.
4. Irvin, D.L., and Goetzl, F.R.: Permanente Found. M. Bull. **9**:119 (Oct.) 1951.
5. Irvin, D.L.; Durra, A., and Goetzl, F.R.: Am. J. Digest. Dis. **20**:17 (Jan.) 1953.
6. Goetzl, F.R.: A Note on the Possible Usefulness of Wine in the Management of Anorexia, unpublished.

℞

in which federal money is made available for medical care on a matched money basis, the money going directly to the person giving the care. He pointed out that there is a provision in H.R. 7225 relative to this program. Mr. McIntyre reviewed the work of committees in the Health Council and called attention to H.R. 9091, which would furnish, in matched money with the state, $96 per year for recipients of old age assistance and $48 for dependent children. The care of indigents in the state was discussed. Mr. McIntyre called attention to two health research projects being undertaken, one in Kansas City which will include the State of Kansas and western Missouri, the other a study of the hospital and health needs of the City of St. Louis, together with resources and facilities available to meet needs.

Joint Licensure

The action of the House of Delegates in regard to single licensure legislation was reviewed, the reference committee report which was adopted being:

"The Reference Committee has reviewed the Report of the Council and the Supplemental Report pertaining to the single licensure of all persons who render health care to Missouri. In the Supplemental Report of the Council and in the Report of the President of the Association, it has been pointed out that there is apathy on the part of the profession toward the single licensure proposal and in some instances, active opposition. The Committee, therefore, recommends that the Council again present the facts concerning single licensure to the membership in an effort to obtain greater understanding and knowledge of the basic problem. After this education effort the council should attempt to secure from the membership an expression of their desire for further action through any means deemed advisable including a direct or indirect poll of the membership to determine the extent of their support. If the result is favorable, then the previously approved policy of the Council should be reaffirmed and the Council should reintroduce legislation at an appropriate time similar to that previously proposed."

Mr. Skinner presented a suggested letter to accompany explanatory material and a postcard questionnaire to go to members. After reviewing the material, on motion of Dr. Dowell, it was voted to send the letter, material and questionnaire to the membership so that returns may be in the hands of the Council at the next meeting.

Blue Shield

The proposed service contract by St. Louis Blue Shield was reviewed briefly.

Workmen's Compensation

The resolution, adopted by the House of Delegates was presented. After discussion, on motion of Dr. Vohs, it was voted to appoint a committee to study the present laws and make recommendations to the Council.

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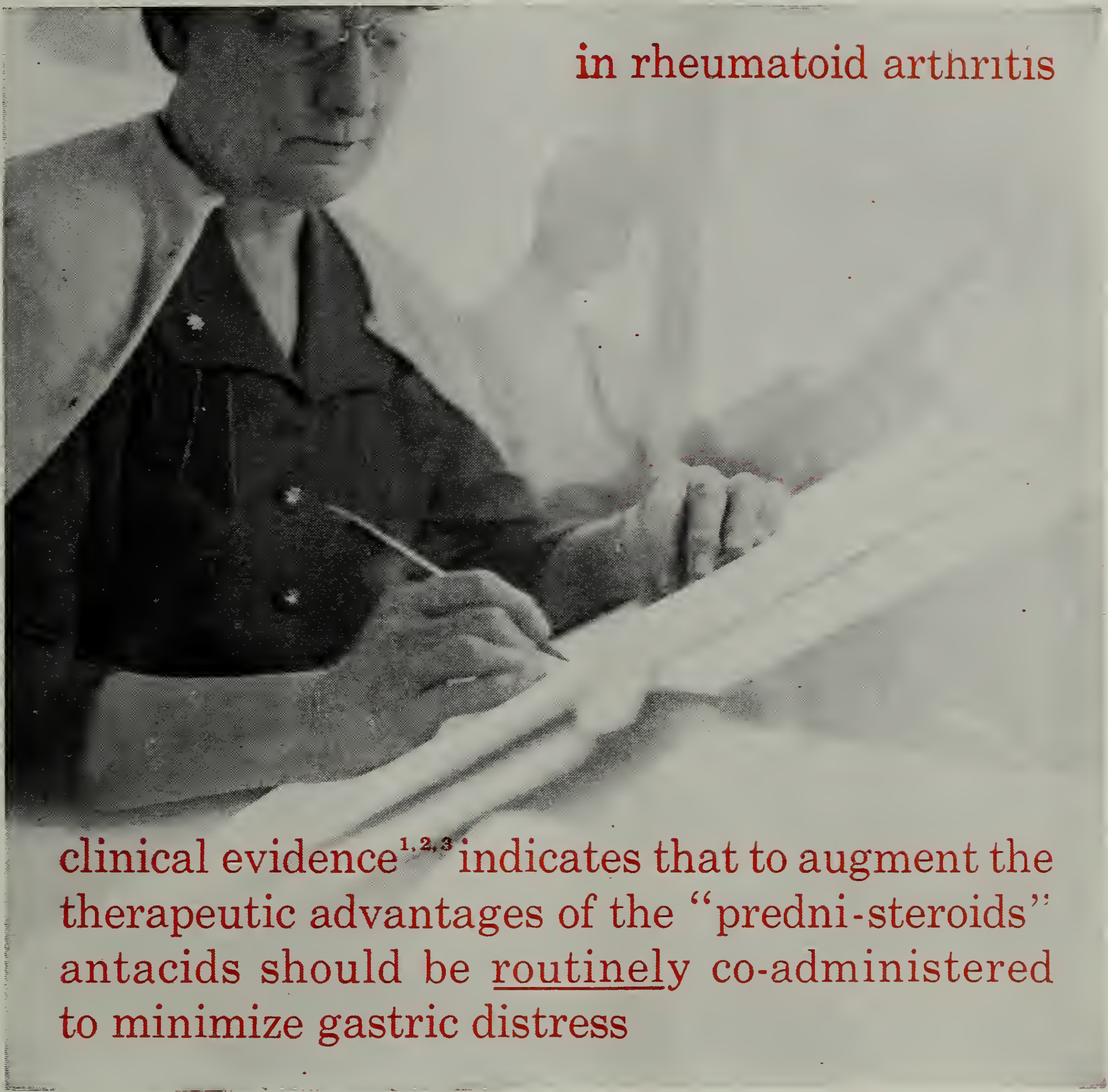

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clinical evidence[1,2,3] indicates that to augment the therapeutic advantages of the "predni-steroids" antacids should be routinely co-administered to minimize gastric distress

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2.5 mg. or 5 mg. prednisone or prednisolone with 50 mg. magnesium trisilicate and 300 mg. aluminum hydroxide gel.

All the benefits of the "predni-steroids" plus positive antacid action to minimize gastric distress.

References: 1. Boland, E. W., *J.A.M.A.* 160:613 (February 25) 1956. 2. Margolis, H. M. *et al.*, *J.A.M.A.* 158:454 (June 11) 1955. 3. Bollet, A. J. *et al.*, *J.A.M.A.* 158:459 (June 11) 1955.

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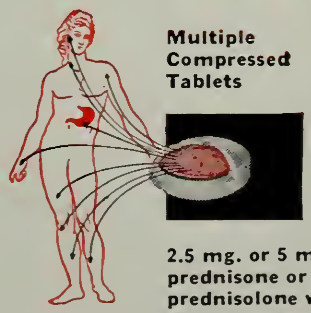

Committee on Infant and Child Care

Dr. Landau presented a report of the Committee on Infant and Child Care. After discussion, on motion of Dr. Bohrer, the portion dealing with the change in handling of polio vaccine was approved. After discussion, on motion of Dr. Stauffacher, it was voted that the Division of Health be asked to send a letter to schools with "Suggested Standing Orders for First Aid and Emergency Illness for Children in School." After discussion, on motion of Dr. Sewell, it was voted that the President write component societies suggesting the appointment of a committee to study health problems of the school age child. The health education workshops which have been held were discussed, Mr. Buckner being asked to tell of the one in Springfield in which he stressed the great advantage of doctor participation. On motion of Dr. Dowell, the report as a whole was accepted.

Committee on Mental Health

Dr. Thale reported for the Committee on Mental Health. After discussion of previous legislation, the present recommendations of the Committee, regarding a director of the Division of Mental Diseases, on motion of Dr. Dowell, was approved. The recommendation concerning facilities for mentally disturbed children, on motion of Dr. Sewell, was approved. On motion of Dr. Stauffacher, the report as a whole was approved.

Division of Health

Dr. Amos reported on activities of the Division of Health, thanking the Council for the cooperation of the medical profession in the polio program; reporting on surveys that are underway toward a hospital planning program for the state; work in trachoma and surveys that are being made; water pollution control work; hospital licensing program; Civil Defense and mental hygiene preventive program. On motion of Dr. Dowell, it was voted that the Council recommend that a salary be paid the Director of the Division of Health that is commensurate with his ability.

Auxiliary Bulletin

Dr. Vohs reported that the Woman's Auxiliary wishes to send its Bulletin to all physicians' wives in the state in addition to its own membership and asked the Association to take care of the cost. On motion of Dr. Sewell, it was voted to do so.

Next Meeting

The next meeting was set tentatively for September 22 and 23.

MEETING OF SEPTEMBER 22, 23

The Council met at the Coronado Hotel, St. Louis, September 22, 23, 1956, with W. F. Francka, M.D., Hannibal, Chairman, presiding. Those present were:

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Drs. Francka, Donald M. Dowell, Chillicothe; R. O. Muether, St. Louis; J. C. Creech, Troy; James W. Allee, Columbia; C. G. Stauffacher, Sedalia; Ralph Perry, Kansas City; B. E. DeTar, Joplin; J. H. Summers, Lebanon; Ben M. Bull, Ironton; Carl F. Vohs, St. Louis; W. S. Sewell, Springfield; E. Royse Bohrer, Jefferson City; Jerome I. Simon, St. Louis; Henry C. Allen, St. Louis; Messrs. John W. Noble, Kennett; John Buckner, Springfield; William H. Bartleson, Kansas City; Lemoine Skinner, Jordan Singleton, Raymond McIntyre, T. R. O'Brien, St. Louis.

Practical Nurse Advisor

A request from the Missouri State Association of Licensed Practical Nurses for a physician to be appointed to serve as advisor to the new Jefferson City Chapter was read. The name of John I. Matthews, M.D., Jefferson City, was suggested.

National Society for Medical Research

A request for continued aid to the National Society for Medical Research was presented and it was agreed that a contribution should be made again this year in the amount of $50.00.

University Advisory Committee

Dr. Vohs reported that he had been requested to serve on an advisory committee to the University of Missouri School of Medicine on which the President and President-elect of the Association would be members. He advised the Council that he would accept the appointment.

Treasurer's Report

The Treasurer's report was presented, giving the present financial status. On motion the report was accepted.

Field Secretary's Report

Mr. McIntyre reported on the exhibit at the State Fair, on "Food Facts and Fallacies" which had been obtained from the A.M.A., and showed pictures taken there and literature that was distributed. He said that the Pettis County Medical Society manned a clinic at the Fair and complimented them on this free public relations service. He suggested that county fair exhibits be considered by county medical societies.

The Public Relations Institute held at the A.M.A. August 29, 30, was reported, and the presentation on the pre-med day for senior high school students held at Central College was reported. He called attention to the present interest in Science Fairs and suggested that more interest be taken by county medical societies. He reported on the dedication of the $600,000 building, headquarters of the A.A.G.P., in Kansas City on September 1, and said that James R. McVay, M.D., was cited during the meeting.

New physicians locating in Missouri were reported.

The University of Missouri postgraduate work for the year was presented as being programs on two Thursday afternoons a month, one a CPC and one a wet clinic.

Mr. McIntyre said that at present one preceptee was with a physician in the state, that seven of twenty-one seniors had elected this in the present class and that as larger classes developed there would be need for more preceptors. The preceptor situation was reviewed and discussed. Following discussion, on motion of Dr. Muether, it was voted that the Committee on Medical Education and Hospitals contact all members by letter with replies going through the respective Councilors, and obtain the names of preceptors who are willing to serve. It was further recommended that the preceptor programs in other states be studied by the Committee.

A.M.A. Dues Collecting

The collection of the A.M.A. dues was reviewed, it being pointed out that in 1948 when they were established, state and county bills had already been sent and many of them paid, so MSMA sent out a separate bill. It was pointed out that since much of the A.M.A. correspondence goes directly to the member and the county society secretary is contacted on it, some confusion has resulted. Most of those present spoke on the subject and after discussion, it was voted, on motion of Dr. Sewell, that the A.M.A. dues be collected on the local level, effective January 1, 1957.

Poll on Single Licensure

Mr. O'Brien presented the results of the poll of members on the single licensure legislation as follows:

Background material and ballots were mailed to all members on August 31, 1956. Following are the returns as of September 18.

Cards mailed	3,750
Cards returned	1,806
Per cent returned	48.1

The ballots contained three questions:

I favor the single-license proposal.
I oppose the single-license proposal.
If the proposal is reactivated, I will give it definite and active support.

Spaces were also provided for remarks and signature. Results:

Favor	626	34.6%
Favor and will support	1,021	56.5%
Total For	1,647	91.1%
Opposed	141	7.8%

(Unless the card indicated definite opposition, those who checked only the "support" question were counted as favorable. Those who indicated opposition, but who also checked the "support" question were counted as Miscellaneous. There were 18 ballots counted as "Miscellaneous," including those impossible to classify.)

Of the 1,806 cards received, 1,383 were signed. Of these, 838 indicated that the signer would give the bill definite and active support. There were 97 signed cards in opposition.

Some of the remarks written on some of the cards indicate a certain amount of confusion about what the bill seeks to accomplish.

He gave a list of pertinent comments made by various members and these were discussed.

A suggested program of precedure was presented, should the Council elect to proceed with legislation.

It was pointed out that attitude might depend to some extent on the situation on other legislation which would be discussed and it was decided to delay action until later in the meeting.

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ATARAXOID exerts the anti-rheumatic, anti-inflammatory activity of STERANE distinctly superior to previous steroids, effective in radically reduced dosage, and with minimal disturbance of electrolyte and fluid metabolism.

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Doctor's Draft

Dr. Allen reported that he expected no activity in the draft until after November 6, and probably not until after the first of the year. He reported that indications were that sufficient doctors will be obtained through the regular draft after the first of the year.

North Central Blood Bank

A request from the chairman of the Committee on Laboratory Medicine that $1,000 be lent the North Central Blood Bank Clearing House was presented, as having been approved by the Committee. After discussion in which it was brought out that only three hospitals in the state were using the Clearing House at present, it was moved by Dr. Muether, seconded by Dr. Bohrer, that $500 be lent. On vote the motion lost.

Public Law 569

A report of the Committee on Medical Economics was presented defining the law passed by the last Congress and which takes effect on December 8, as follows: "To create and maintain high morale throughout the uniformed services by providing an improved and uniform program of medical care for members of the uniformed services and their dependents." The program covers dependents requiring hospitalization. The only office procedures included are for emergency accidents and for antepartum and postpartum, care of maternity cases. It was pointed out that there are approximately 2,600,000 dependents eligible for medical care, of whom 800,000 will receive care in civilian facilities. A series of meetings with the Department of Defense and A.M.A. were reported and it was pointed out that the A.M.A. would like to have as soon as possible the name of the state agency which will sign the contract, the name of the fiscal agent and a fee schedule. It was reported that 80 per cent of the states were naming the state medical association as contracting agent, that most states have named Blue Shield as fiscal agent. A fee schedule on 200 items which the Defense Department has particularly requested was presented, it being pointed out that the Committee had studied the Kansas City Blue Shield $5,000 income limit plan, the Columbus, Ga., plan, the preferred schedule of Medical Indemnity of America the $300 preferred plan of the St. Louis Blue Shield and the California unit value system in arriving at the figures presented.

Contracting Agent

On motion of Dr. Dowell, seconded by Dr. Perry, it was voted that MSMA be the contracting agent.

It was pointed out that a resolution dealing with this act was submitted to the House of Delegates of MSMA. The resolution was unanimously approved by the House and appears on page 568 of MISSOURI MEDICINE, July, 1956.

Fiscal Agent

On motion of Dr. Bull, seconded by Dr. Summers, it was voted that the two Blue Shield plans of Missouri be asked to serve as fiscal agents.

Fee Schedule

On motion of Dr. Creech, seconded by Dr. Dowell, it was voted that the tentative fee schedule submitted

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Man's ingenuity has created a wide range of communications devices. But, in prepaid health care, few excel the effectiveness of the doctor who says, "For the *best* in prepayment, get Blue Cross and Blue Shield."

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by the Committee on Medical Economics be used for the purpose of negotiations.

Representatives

On motion of Dr. Dowell, it was agreed that representatives of the Association to deal with the Department of Defense should be the Executive Secretary, the Chairman of the Committee on Medical Economics and the Association's attorney.

H.R. 7225

H.R. 7225, which was passed by the last Congress was discussed, it being pointed out that one of the provisions would be the examination of applicants for cash disability by doctors. It was pointed out that the "disability freeze" had been handled in Missouri by the Division of Vocational Rehabilitation in the Department of Education and that probably this would be handled in the same department. The appointment in 1955 of a medical advisory committee to that department was helpful but it was felt that probably the committee should be set up by law now, which should be done in the next session of the legislature.

It was pointed out that under another section of H.R. 7225 there is a provision for a direct federal grant to states on a matching basis of $3 per month per welfare patient and that payment would be made direct to the vendor, nurse, doctor, hospital or pharmacist for services provided in medical care of welfare recipients.

Physical Therapy

A letter outlining the desire of physical therapists for a state examining board was read. It was suggested that more information be obtained and on motion of Dr. DeTar action was tabled until the next session of the Council.

Narcotic Law

It was pointed out that the State narcotic law did not coincide with the federal law, especially in the telephoning by physicians of certain prescriptions. It was agreed that more information is needed on plans of the pharmacy group before action could be taken and that it should be considered at the next Council meeting.

Dr. Allee's Resignation

Dr. Allee reported to the Council that he was closing his practice the last of October and opening practice in Florida December 1, and therefore wished to resign from the Council. On motion of Dr. Dowell, the resignation was accepted with regrets.

Mr. Foristel

Mr. James W. Foristel, Legal Advisor, A.M.A. Washington Office, was introduced and reviewed recent legislation and present trends in legislation. He said that all states except three have agreed to cooperate

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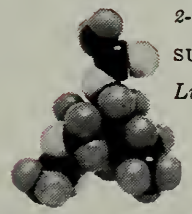

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with the Department of Defense as set out in Public Law 569. Those three have not as yet reported to the A.M.A. In all but seven states Blue Shield has been asked to serve as the fiscal agent.

Public Law 569

Mr. Foristel said that three probably were 20,000 military dependents in Missouri, estimated that half would go to military facilities and that 1/5 would be hospitalized during a year, so the number actually concerned was not large. He said that legislation covering all federal employees will be presented in the next session of Congress and that this number was approximately two and a half million, plus their dependents.

H.R. 7225

Public assistance recipients were discussed by Mr. Foristel who estimated the total number in Missouri as 212,036, saying that if the state matched federal funds it would amount to $12,722,160 annually for public assistance recipients.

It was suggested that the Committee on Medical Economics be asked to study the cash grants to states contained in H.R. 7225; that the Committee on Physical Medicine be asked to study the disability phase of H.R. 7225. It was also agreed that a general letter should go to all members striving to acquaint them with recent legislation and future trends.

Dr. Amos

Dr. Amos reported on recent trachoma work, saying that most of the state had been covered with clinics for the detection and diagnosis of trachoma and gave figures on the findings as follow: 1,741 seen in clinics, 702 old nonactive cases, 67 new nonactive cases, 42 suspects, 56 needing surgery and 4 active cases. As a result of these studies, the Trachoma Hospital at Rolla has gradually reduced its load and will be used only for out-patient clinics in the near future.

A recent meeting of the hospital advisory committee was reported by Dr. Amos and he reported that some minor changes were suggested in the rules and regulations covering hospital licensing.

Single Licensure Board

On motion of Dr. Dowell, seconded by Dr. Muether, it was voted that in view of the instructions of the House of Delegates that a poll of the membership be taken and since that poll showed 91.1 per cent of a 48.1 per cent return indicated favoring the reintroduction of legislation toward a snigle licensing board, that such legislation be introduced in the 1957 session of the legislature.

Program

On motion of Dr. Muether, seconded by Dr. Dowell, it was voted to implement the proposed program as presented at the Saturday meeting.

Budget Committee

The Chairman appointed the following Budget Committee: Drs. Simon, chairman, Vohs, Sewell, Stauffacher, Bull, and the Chairman ex officio.

Bulk makes the "Regularity" Diet work!

Rough or gentle, bulk for the ordinary "regularity" diet comes from the cellulose of foods plus a liberal fluid intake. Where roughage is needed, foods may be eaten raw or cooked. In the bland diet, fruits can be stewed and vegetables puréed.

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Fruits and vegetables are high in cellulose. And fruits like oranges and apples, root vegetables like beets and carrots also provide pectin which absorbs even more fluid to form especially smooth, soothing bulk.

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And lots of liquid to make the cellulose bulky—about 8 to 10 glasses a day. Not all of that has to be water—in fact, some of it might be beer.*

Team them up for appetite appeal—

Boiled beets take on new interest when they're served in a sauce of orange juice combined with a little sugar, cornstarch, and butter.

Apples team nicely with dates. Serve them diced with mayonnaise for salad. Or for dessert, stuff cored apples with dates and bake in orange juice.

Currants, raisins, or fresh cranberries make a tasty surprise in oatmeal muffins.

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Compensation Laws

The Chairman appointed the following committee to study the compensation laws in Missouri, as instructed by the House of Delegates: Drs. Harry M. Roebber, Bonne Terre, Chairman; Victor E. Scherman, St. Louis; John W. Growdon, Kansas City; Carl J. Reis, St. Louis; Carl F. Vohs, St. Louis; W. S. Sewell, Springfield; W. F. Francka, Hannibal, ex officio.

Fifth District Councilor

On motion of Dr. Bohrer, seconded by Dr. Dowell, Byron M. Stuart, M.D., Boonville, was appointed to fill the term of Dr. Allee, resigned, until the next meeting of the House of Delegates.

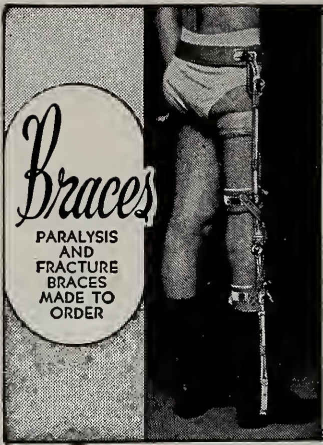
Negotiating Committee on Public Law 569

After discussion, on motion of Dr. Vohs, properly seconded, it was unanimously agreed that the Negotiating Committee should have wide latitude in its negotiations but that no changes in the proposed fee schedule be made by the Negotiating Committee. In the event the Department of Defense is unwilling to accept the proposed fee schedule, a special meeting of the Council shall be called for the purpose of further consideration.

Next Meeting

The next meeting of the Council was discussed and although there are conflicts in dates, it will probably be held November 17 and 18.

W. F. Francka, M.D., *Chairman*



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From the Medical Schools

WASHINGTON UNIVERSITY

Honors

Three Washington University faculty members were decorated for their distinguished work in gerontology by the Mexican Academy of Gerontology September 22 at the first Pan-American Congress of Gerontology held September 15 to 22 in Mexico City. Recipients were Dr. Willis H. Reals, professor of adult education and chairman of the university gerontological committee; Dr. William B. Kountz, assistant professor of clinical medicine and president of the Gerontological Society of the United States, and Dr. E. V. Cowdry, director of the Wernse Laboratory of Cancer Research and a former president of the society. As another event of the congress the Gerontological Research Foundation, a St. Louis organization, presented the first E. V. Cowdry Award to Dr. Manuel Payno, of Mexico, the president of the congress for "his distinguished service in organizing and conducting the congress, thereby stimulating and encouraging the study of gerontology in the Americas." This award from the foundation will be presented in the future on recommendation of the Pan-American Division of the International Association of Gerontology to those who contribute most to the investigation of the problems of gerontology in the Americas.

Dr. J. Barrett Brown, professor of clinical surgery, was among fourteen physicians and surgeons awarded Mississippi Valley Medical Society fellowships recently in Chicago at the society's 21st annual meeting. The fellowships were given "in recognition of high qualifications, personal and professional, and of established professional standing," with final approval being made by a three-fourths vote of the society's board of directors.

Appointments, Elections

Dr. Oliver H. Lowry, dean of the medical school, recently was appointed to the twelve-member National Advisory Council on Health Research Facilities by Marion B. Folsom, Secretary of Health, Education and Welfare. The council will assist the United States Public Health Service in administering a new program of federal grants to various medical and dental schools, hospitals and certain nonprofit organizations for the construction of research facilities. Congress recently appropriated $30,000,000 a year for three years to finance the program. Also named to the council were Dr. Robert A. Moore, former dean of the medical school and now vice chancellor of the University of Pittsburgh, and Dr. Thomas H. Hunter, formerly associate dean who now is dean of the University of Virginia Medical School.

Maj. Gen. Paul I. Robinson, lecturer in hospital administration of the Army at the medical school, recently was appointed Executive Director of the new

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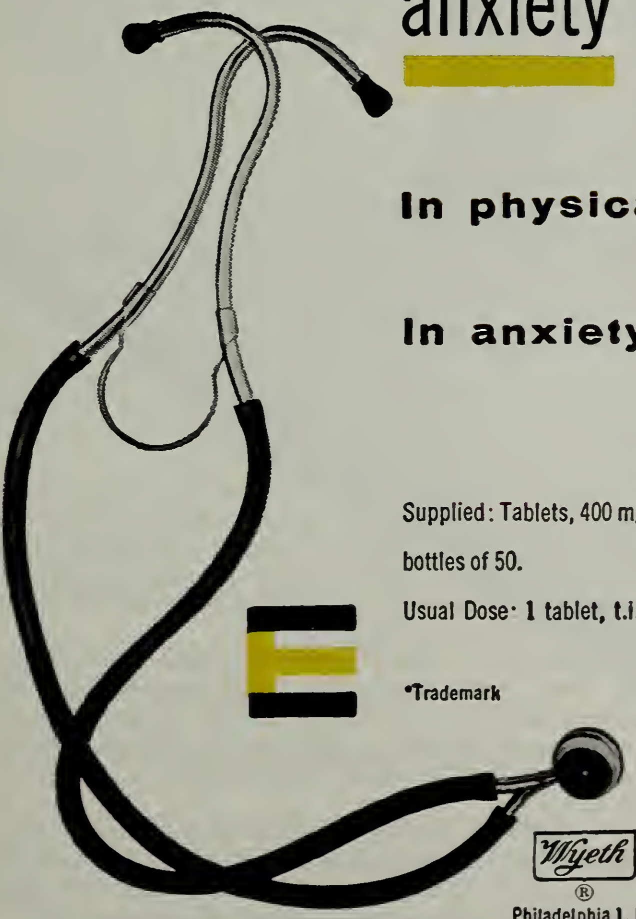

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dependents' civilian medical care program, according to the Army Surgeon General. General Robinson will head a program established to implement a bill enacted by Congress this summer providing for medical care in civilian facilities to dependents of active duty military personnel of the "uniformed services." Since the Army has been designated the Executive Agent for the "medicare" program, General Robinson will be particularly concerned with the arrangement for medical care received from civilian sources for the wives and children of those in the Army, Navy, Air Force, Public Health Service, Coast and Geodetic Survey and the Coast Guard. There are approximately 800,000 persons in this category. General Robinson also is a 1928 graduate of Washington University School of Medicine.

Dr. Wendell G. Scott, professor of clinical radiology, was chosen president-elect of the American Roentgen Ray Society at its annual meeting recently in Los Angeles.

Dr. Arthur E. Strauss, assistant professor emeritus of clinical medicine, has been named chairman of the 1957 St. Louis Heart Association fund drive. He also served as chairman of the 1956 drive. Dr. Strauss has been a member of the board of the St. Louis Heart Association since it was reactivated in 1949 and served as president in 1953, 1954 and 1955.

Grants

Washington University School of Medicine recently received $500,000 from the Ford Foundation for instructional purposes, mainly for teachers' salaries. The medical school was among forty-three four year privately supported medical schools given $500,000 grants to strengthen instructional programs. These grants are the first installment of $90,000,000 earmarked by the Ford Foundation for medical schools.

A federal grant of $114,803 to Washington University was approved recently by the Missouri Hospital Council, pending final allocation by the Surgeon General, under terms of the Hill-Burton Act. This act calls for matching funds to be raised by institutions receiving grants. Dean Oliver H. Lowry announced that matching funds had been contributed to the university over a five year period for the Irene Johnson Rehabilitation Center. It will be used for teaching and research as well as for service. Director of the center will be Dr. Robert E. Shank, professor of preventive medicine. Most of the money in matching funds came from Mrs. Johnson, widow of Oscar Johnson, before her death in 1954. Additional funds for the center came from the National Foundation for Infantile Paralysis.

Three faculty members of the medical school have been awarded research grants totaling nearly $30,000 by the United Cerebral Palsy Association of Greater St. Louis. Dr. George A. Ulett, professor of psychiatry and medical director of Malcolm A. Bliss Psychopathic Hospital, and John A. Stern, research associate in medical psychology, will receiver $17,335 in the ensuing year; and Dr. Eli Robins, associate professor of psychiatry, will be given a $12,236 grant.

Visitors

Among recent visitors to the medical center was Dr. Enrico Greppi, professor of medicine at the University of Florence, Italy, who was in St. Louis September 25 to discuss arrangements for the Fourth International Gerontological Congress with Dr. E. V. Cowdry, director of the Wernse Laboratory of Cancer Research. The congress will be held next July in Merano and Venice, Italy. Dr. Greppi, who will serve as president, was in the United States making arrangements for the congress after attending the first Pan-American Congress of Gerontology in Mexico City. Dr. Cowdry served as president of the second International Congress which was held in St. Louis in 1951.

Other visitors at the medical school were Dr. John Bunyan, noted British surgeon from London; and Dr. Seizo Katsunuma, president of Nagoya University in Japan. Both visited with staff members at the school in late September.

UNIVERSITY OF MISSOURI

A memorable year is beginning in the history of the University of Missouri School of Medicine this fall of 1956. An increased class of seventy-five first year students was registered on September 19, with thirty-nine second year students, thirty-three third year students, and twenty-three fourth year students, who will be the first graduating class to receive their M.D. from the University of Missouri School of Medicine, on June 8, 1957. The new thirteen and one half million dollar Medical Center was opened on Sunday, September 16, and some fifty patients were transferred from the Parker, Noyes and Student Health Buildings to their new quarters. This was the end of fifty-seven years of service for the old Parker Hospital, and thirty-three years for Noyes.

First year medical students attended all of their classes in the new four-floor Medical Sciences Building on September 20, while the third and fourth year students began their classes in the new University Hospital. The second year medical students are expected to transfer from McAlester Hall to the new Medical Sciences Building in a few weeks. All classes in nursing education are held in the new Medical Center.

Trips and Talks

On September 1, Dean Roscoe L. Pullen, accompanied by acting assistant dean, Dr. Frank B. Engley, Jr., attended the dedication exercises of the new American Academy of General Practice Building in Kansas City, Missouri, and were guests at the banquet at the Muehlbach Hotel which followed the dedication.

Dean Pullen greeted members at the morning session of the annual workshop of Medical Record Librarians in Columbia on September 20. This workshop was sponsored by the Adult Education and Extension Division of the University of Missouri and the University of Missouri School of Medicine.

Dr. Robert Keller, assistant professor of microbiology, visited the Microbiology Departments of the University of Denver, the University of Colorado, and the Denver Veterans Administration Hospital, where professional discussions were held with members of the staff of the various institutions.

Dr. Jacob S. Roden, assistant professor and acting chairman of the Department of Obstetrics and Gynecology and Dr. Clarence D. Davis, professor of obstetrics and gynecology attended a meeting of the St. Louis Maternal Mortality Committee on August 30 in St. Louis.

Dr. Robert L. Jackson, professor and chairman of the Department of Pediatrics, gave a speech entitled, "Nutritional Management of Infants and Children," and also presented a brief review of the present status

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of treatment of children with diabetes mellitus, at a meeting of the Wapello County Medical Society in Ottumwa, Iowa, on September 4.

Dr. Hugh E. Stephenson, Jr., associate professor and chairman of the Department of Surgery, visited the University of Miami Department of Surgery during the month of August. Also, Dr. Stephenson visited the New York Bellevue Medical Center during July.

The month of August was a most interesting and informative one for Dr. Samuel P. W. Black, associate professor of surgery, here at the University of Missouri School of Medicine. On August 2 and 3, Dr. Black visited the Edinburgh Royal Infirmary in Scotland and it was his great pleasure and privilege to make rounds with Professor Norman Dott, chief of neurological surgery at the University of Edinburgh, a man who ranks in the forefront of world figures in neurosurgery. On August 8, Dr. Black visited the Anatomical Institute at the University of Oslo where Professor Birger Kaada is the neurophysiologist. Still later in the month, Dr. Black had the privilege of seeing Professor Stender, professor of neurological surgery at the Frei Universitat in Berlin. The opportunity was afforded Dr. Black to see Professor Stender operate upon a patient with a craniopharyngioma, and was much impressed by the skill of Dr. Stender and his team. The last week of August was spent in London, where, through the good offices of the Dean, Dr. Michael Kramer, Dr. Black had the privilege of attending out-patient clinics and ward rounds at the National Hospital, Queen Square, part of Ree University of London. This world-renowned hospital is a global focal point for the study of diseases of the nervous system. The depth and supreme competence of their staff and their interest in teaching was a most inspiring experience for Dr. Black. Dr. Black returned to the States during the early part of September, and on September 13 he attended a meeting of the Randolph County Medical Association at Woodland Hospital, Moberly, Missouri.

Postgraduate Activities

A new Postgraduate Medical Education Committee has been appointed at the University of Missouri and the new members are as follow: Dr. Robert L. Jackson, professor and chairman of the Department of Pediatrics, chairman; Dr. Jacob Roden, assistant professor and acting chairman of the Department of Obstetrics and Gynecology; Dr. Gwilym S. Lodwick, professor and chairman of the Department of Radiology; Dr. Claude K. Leeper, assistant professor of pathology; Dr. Hugh E. Stephenson, Jr., associate professor and chairman of the Department of Surgery; and Dr. Jason Ned Smith, instructor in medicine. The committee has developed a postgraduate program in cooperation with the Missouri State Medical Association and the Missouri Academy of General Practice. Two hour teaching sessions will be held at the new University of Missouri Medical Center twice a month from 3:00 to 5:00 p.m. on Thursday afternoons. The first hour will consist of a panel discussion and the second hour will be either a clinical pathological conference or a correlative clinic. The latter will be conducted by one of the clinical divisions of the School of Medicine and will be a symposia dealing with the problem of a patient under observation in the hospital. Members of the Missouri State Medical Association are invited to attend all sessions which will be held on November 8, 29; December 6, 13; January 10, 24; February 14, 28; March 14, 28; April 11, 25, and May 9, 23.

Grants

Dr. Grafton A. Smith, assistant professor of surgery, has been awarded a two year reach grant of $22,000 for studies of absorption from the intestine and gallbladder. This will enable him to continue his interests in gastrointestinal physiology developed while a member of the surgical staff at the University of Minnesota. The award was made by the National Institutes of Helath of the U. S. Public Health Service. Dr. Herbert S. Goldberg, assistant professor of microbiology and Dr. R. N. Goodman, associate professor of horticulture, have been awarded a U. S. Public Health Service Grant in the amount of $15,812 for the purpose of studying the public significance of antibiotic residues in the edible portions of horticultural crops. This grant is for the period September 1, 1956, to August 31, 1957. Dr. Thomas D. Luckey, professor and chairman of the Department of Biochemistry, has been awarded a U. S. Public Health Grant in the amount of $6,900 for the period September 1, 1956, to August 31, 1957, to study the isolation of a growth factor for invertebrates. A U. S. Public Health Grant has also been given to Dr. Victor J. Cabelli, assistant professor of microbiology, in the amount of $6,000 for the period of September 1, 1956, to August 31, 1957, to study klebsiella pneumoniae and related organisms. An undergraduate teaching grant in mental health has been renewed and awarded to Dr. W. A. Sodeman, professor and chairman of the Department of Medicine, in the amount of $25,000 for the period of July 1, 1956, to June 30, 1957, by the U. S. Public Health Service. Dr. Gwilym S. Lodwick, professor and chairman of the Department of Radiology, has been awarded a National Research Council grant in the amount of $1,134 for the period of July 1, 1956, to June 30, 1957. This grant is in support of studies on roentgen evaluation of the diagnosis and aggressiveness of primary bone neoplasms and primary lung neoplasms.

New Appointments

Dr. Gilbert Ryder has been appointed clinical associate in medicine (dermatology). Dr. Ryder received his M.D. in 1951 at the University of Nebraska, and has been securing his specialty training since then. Dr. Benedict A. Moranville, II, has been appointed assistant instructor in the Department of Medicine. Dr. Moranville received his M.D. degree in 1953 from St. Louis University and has been a medical officer in the Air Force from 1953 until the present time. Mr. William J. Lembeck and Mr. Thomas B. Stim have been appointed assistant instructors in the Department of Microbiology. Mr. Lembeck received his M.S. degree in bacteriology this past June from Louisiana State University. Mr. Stim has been in the U. S. Army until his appointment here, having secured his M.A. degree from the University of Texas in 1953.

Miscellaneous

Dr. Lloyd E. Thomas, associate professor of biochemistry at the University of Missouri for nineteen years, has resigned to take charge of the cancer research program at the Portland (Oregon) Good Samaritan Hospital. He will be succeeded by Dr. A. A. White, presently assistant professor of biochemistry, Georgetown University, Washington, D. C. Dr. White will become assistant professor of biochemistry at the University of Missouri on January 1, 1957.

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1. Medical Gynecology, ed. 2, Philadelphia, 1950

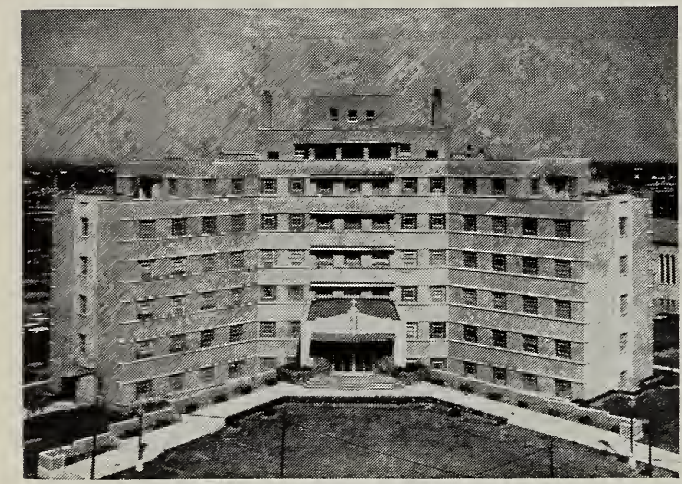
*T.M. Reg. U.S. Pat. Off.

SAINT LOUIS UNIVERSITY

Travel and Lectures

Dr. John P. Wyatt, associate director of the department of pathology, left St. Louis the middle of September to spend two months at Scotland Yard, London, as a guest investigator with the Coroner System. During his stay in London, Dr. Wyatt will be associated with Dr. Keith Simpson, Home Office Pathologist, stationed at Guys Hospital. Dr. Wyatt is Chief Coroner's Pathologist for St. Louis County. In this capacity he maintains pathologic investigations under Arnold Willman, County Coroner, and Dr. Curtis Lohr, Supervisor of County Hospital. While abroad, Dr. Wyatt will investigate the preparation of criminal cases, and study how Scotland Yard fits into the Coroner System.

Dr. Joseph A. Hardy, Jr., director of the Department of Gynecology and Obstetrics, discussed a paper titled "Cytological Studies as an Index of Radio Sensitivity in Carcinoma of the Cervix" before the annual meeting of the American Association of Obstetricians and Gynecologists held at The Homestead in Hot Springs, Virginia, September 6 to 8. Dr. William H. Vogt, Jr., assistant professor of clinical gynecology and obstetrics, accompanied Dr. Hardy as a guest.



The new $6,000,000 Cardinal Glennon Memorial Hospital for Children, which is staffed by the School of Medicine Faculty and operated by the Sisters of St. Mary. The hospital which opened July 1, occupies a four-and-one half acre site in the immediate vicinity of the School of Medicine and Firmin Desloge Hospital. Dr. Peter G. Danis, professor of clinical pediatrics, is Chief-of-Staff of the new hospital, while Sister Mary Felicia, S.S.M., is the administrator.

Dr. Louis H. Kohler, associate professor of clinical neurology and psychiatry, and President of the St. Louis Medical Society, attended a conference on Evaluation of Pharmacotherapy in Psychiatry in Washington September 21 to 22. The meeting was sponsored by the National Academy of Sciences.

Dr. Erwin E. Nelson, director of the Department of Pharmacology, lectured on "Drug Comes on the Market" before the Greater St. Louis Federal Business Association September 11.

Dr. C. Rollins Hanlon, director of the Department of Surgery, spoke before the staff of the St. Joseph's Hospital in St. Paul, Minnesota, September 18. His address was titled "Superior Vena Cava Obstruction—Clinical and Experimental Consideration." He also talked before the St. Paul Surgical Society September 19. This address was titled "The Case for Operative Cholangiography."

Dr. Daniel E. O'Reilly, senior instructor in orthopedic surgery, attended a regional meeting of the United Cerebral Palsy Association in Houston, Texas, September 23. He spoke on "The Cerebral Palsied and the Community."

Dr. Otokar Machek, instructor in orthopedic surgery, attended sessions of the Congress of the Physical Medicine and Rehabilitation, the American Society of Electromyography and the meeting of the Medical Directors of Physical Medical Schools held in Atlanta, Georgia, September 9 to 15. On September 18, Dr. Machek appeared before the Board of Freeholders' Executive and Administrative Committee. He spoke on the rehabilitation centers in St. Louis.

Two faculty members spoke before the 21st annual meeting of the Mississippi Valley Medical Society meeting held in Chicago, September 26 to 28. Dr. Willard Bartlett, assistant professor of clinical surgery, spoke on "Management of the Patient With Acute Cholecystitis." Dr. F. X. Paletta, assistant professor of clinical medicine, spoke on "Management of Facial Injuries."

TV Series on the Medical Specialties

Eight faculty members participated in a television series on the medical specialties, which was telecast over KWK-TV each Friday afternoon through the months of August and September. Individual weekly participants and their topics included: Dr. Goronwy O. Broun, director of the department of internal medicine, Internal Medicine; Dr. Joseph A. Hardy, Jr., director of the department of gynecology and obstetrics, Gynecology; Dr. F. X. Paletta, assistant professor of clinical surgery, Plastic Surgery; Dr. Louis L. Tureen, executive secretary of section on neurology, Neurology; Dr. C. Rollins Hanlon, director of the department of surgery, Surgery; Dr. Bernard J. McMahon, director of the department of clinical otolaryngology, Otolaryngology; Dr. Otakar Machek, instructor in orthopedic surgery, Physical Medicine and Rehabilitation, and Dr. Louis H. Kohler, associate professor of clinical neurology and psychiatry, Psychiatry. Dr. James P. Murphy, assistant professor of clinical medicine and Walter Eberhardt, director of physical education served as moderators on the series. The series titled "Know Your Doctors" was sponsored by the Catholic Radio and Television Apostolate of St. Louis.

CLAY COUNTY CONFERENCE

The Clay County annual clinical conference is being held November 1 at the Elms Hotel, Excelsior Springs, to which all members are invited. The program follows:

10:00 a.m. Registration.
12:15 p.m. Luncheon, S. R. McCracken, M.D., Excelsior Springs, presiding. Speaker: Victor B. Buhler, M.D., Kansas City, "The Need for a Medical Examiner System in Missouri."
1:30 p.m. "Varicose Veins and Stasis Problems, With Respect to the Interest and Potentialities of the General Practitioner," Frederick B. Wagner, Jr., M.D., Philadelphia, Pa.
2:30 p.m. "The Management of Juvenile Diabetes," Kelly M. West, M.D., Oklahoma City, Okla.
3:15 p.m. Intermission.
3:30 p.m. "Atherosclerosis," Robert E. Shipley, M.D., Indianapolis, Ind.
4:30 p.m. "Psychological Problems in General Practice of Medicine," Derek Miller, M.D., Topeka, Kansas.

5:30 p.m. Social Hour.
6:00 p.m. Dinner.
8:00 p.m. "Medical Experiences in the Middle East," Wallace Graham, M.D., Kansas City.

STATUS OF MEDICAL LEGISLATION

The American Medical Association Washington Office recently issued a special biennial report on legislation of interest to the medical profession which was introduced during the two years of the 84th Congress. A few, of most pertinent interest, are presented.

Military Legislation

Dependent Medical Care: With the signing of Public Law 569, dependents of military personnel were assured broad medical care as a statutory right, and the Defense Department achieved a major goal in its program to make a military career more attractive. The program, which goes into effect December 8, 1956, defines dependents and provides for them the following: (1) all dependents may be treated in military facilities subject to availability of space and capabilities of staff, (2) spouses and children of active duty personnel are eligible for medical care from private facilities under a plan now being formulated, (3) the Secretary of Defense may limit use of private facilities for spouses and children in areas where military resources are adequate, and (4) other beneficiaries, such as unremarried widows and parents and parents-in-law (if the serviceman is responsible for half their support), are restricted to care in military facilities on a space-available basis.

Career Incentive Pay: Public Law 497 is directed at another Defense Department problem: how to attract and retain physicians in the Army, Navy and Air Force. To help in this program, the 84th Congress approved the career incentives bill which does the following: (1) gives all doctors in uniform, including the commissioned corps of Public Health Service, an extra $50 a month after more than two year's service, $100 extra after six years and $150 a month after ten years, and (2) credits medical school and internship training periods toward future pay and promotions. These payments are in addition to the present extra $100-per-month equalization pay.

Doctor Draft Extension: One of the early health measures to pass in the first session of this Congress, P. L. 118, extended the Doctor Draft Act until July 1, 1957, Congress agreeing it was essential in order to procure enough experienced physicians to maintain high medical care standards. The law also extends for four years to July 1, 1959, the $100-per-month equalization pay for doctors.

Military Status for PHS: Public Law 492 permits the President in time of national emergency to give the commissioned corps of Public Health Service military status.

Commissioning of Osteopaths: Under Public Law 763, osteopaths are eligible (on a permissive basis) for the first time for medical commissions in all the military services.

Public Health Legislation

Health Amendments (Omnibus) Act: Popularly known as the little omnibus health bill, this measure (P. L. 911) represents a compromise between what the administration sought in its omnibus proposal of more than a year ago and what the majority in Congress wanted. Its five titles provide the following: (1) extension for two years beyond next July 1 of the Hill-Burton hospital construction program, (2) grants to states, groups and individuals for research in mental health, (3) traineeship grants for public health personnel, (4) traineeships for graduate nurses, and (5) earmarked funds for practical nurse training. The original Eisenhower omnibus health bill included the twice-rejected health reinsurance fund and mortgage loan guarantees for health facilities.

National Health Survey: To fill what its sponsors describe as a 20-year gap in knowledge, Public Law 652 provides for special and continuing surveys of the amount, distribution and effects of illness and disability and the types of medical services furnished.

Social Welfare Legislation

Social Security Amendments: One of the most controversial measures to come before Congress in years was the Social Security Bill (now P. L. 880) passed on the very last day of the second session. It includes cash payments for disability at age 50, a proposal that slipped through the House in 1955 without public hearings and limited debate and came within one vote of being defeated in the Senate this year. Other provisions: (1) a so-called separate fund for OASI payments to workers found totally and permanently disabled at age 50, (2) an additional one-half of one per cent payroll tax effective next January 1 (half to be paid by employee, and half by employer) and three-eighths of one per cent tax for the self-employed, (3) inclusion of dentists, osteopaths, lawyers and other groups in the social security system, (4) lowering retirement age for women to 62, (5) increased federal payments to the states for persons on public assistance rolls, and (6) earmarked payments to states for the medical care of public assistance recipients.

TUBERCULOSIS ABSTRACT

ACCEPTABLE STANDARDS IN THE TREATMENT OF TUBERCULOSIS

This statement represents the joint and considered opinion of the American Trudeau Society Committees on Therapy and on Administrative Problems.

In recent years the discussion of hospital and home care of patients with tuberculosis has tended to cloud certain concepts which need re-emphasis.

Tuberculosis remains a chronic, infectious disease. It requires long and continuous treatment. The physician should be assured of the cooperation of the patient and family. This is necessary to be sure that the treatment and other recommendations made will be followed in compliance with good clinical and preventive medical practices and the regulations of the local boards of health.

Good medical practice requires the maximum facilities for clinical evaluation of a case, which, in most instances, can be done best in the hospital where appropriate treatment can be started. Preferably it should be continued until the patient's condition is satisfactorily stabilized. Now with more effective treatment methods, it may be reasonable to modify the period of hospitalization for certain selected cases. The treatment of tuberculosis remains difficult and the results

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Issued by the National Tuberculosis Association.
A Joint Statement of the Committees on Therapy and on Administrative Problems of the American Trudeau Society, *American Review of Tuberculosis and Pulmonary Diseases*, April, 1956.

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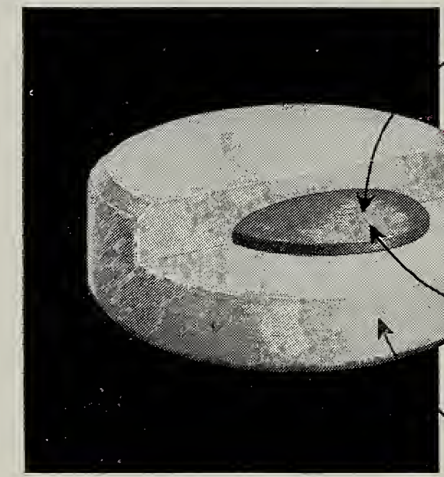

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in individual cases are frequently unpredictable. When home care is used, it must be carefully coordinated with hospital care, particularly during treatment of the active stages.

To secure the best results, certain standards must be met:

1. *Medical care.* The patient should be under the continuous supervision of a well trained physician or group of physicians who thoroughly understand the care, management, and treatment of tuberculosis. As most cases will involve both hospital and home care, there must be maximum coordination of inpatient and outpatient services and careful cooperation with the private physician in the approach to this treatment.

2. *Diagnosis.* Facilities must be available for the diagnosis and subsequent management of all patients. These would include readily available roentgenographic examinations with facilities for special examinations, such as stereoscopic films, planigraphy, fluoroscopy, and other needed measures. Provisions must be made for clinical laboratory examinations, biopsy, bronchoscopy, and other necessary tests so frequently required to make a correct diagnosis.

3. *Isolation.* Tuberculosis remains a communicable disease and this fact needs to be kept continuously in mind. Facilities must be available for the isolation of the patient to protect the members of his family and the public. It must be remembered that sputum often does not become negative for M. tuberculosis during the first several months of treatment and too frequently fails to convert in advanced cases even under the best therapy.

4. *Nursing.* Rest and nursing care must be assured for the patient. Provisions for rest must include both

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Intense and prolonged deficiency in essential nutrients and food energy depresses pituitary, gonadal, and other endocrine activity, leading to subnormal physiologic states. Clinical studies exposing male volunteer subjects to a semistarvation diet produced symptoms resembling those of various endocrine dysfunctions.[4] Since the pituitary and other hormones are protein in nature, it appears logical to assume that protein nutrition plays an important part in their synthesis.[5]

Meat, by supplying valuable amounts of high quality protein, B vitamins, essential minerals, and fat containing unsaturated fatty acids, contributes importantly to any role that good nutrition may play in the maintenance of the endocrines, their functioning, and the production of hormones.

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The nutritional statements made in this advertisement have been reviewed by the Council on Foods and Nutrition of the American Medical Association and found consistent with current authoritative medical opinion.

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physical relaxation and psychological rest with all that this implies. Nursing care includes not only the physical aid given by the nurse to the patient, but also the assistance to the physician in the education of the patient concerning his disease and the necessity for treatment.

5. *Nutrition.* A well balanced diet is a necessity. Assistance in the selection and preparation of this diet will be needed, particularly in the early months of therapy.

6. *Drug therapy.* Antimicrobial therapy must be available for long-term, continuous treatment in accordance with accepted regimens. The drug regimen should be determined on medical factors alone, and should not be influenced by the convenience of the patient, physician, or nurse. Once started, antimicrobial treatment should be continued without interruption as long as medically indicated.

7. *Sputum examinations.* Laboratory facilities must be available to provide periodic examinations of sputum or gastric contents at regular intervals. This will vary from frequent examinations at the start of treatment to at least bimonthly examinations after several months. Studies must include cultures at regular intervals, especially when smears are negative for M. tuberculosis. Cultures of positive sputum are necessary for diagnostic identification, viability, and drug-susceptibility tests. It is advisable to include the studies of the bacilli for drug susceptibility, and the results should be evaluated in conjunction with clinical data. Alterations in therapy should not be made hastily on the basis of these results alone. Other laboratory studies to detect early evidences of drug resistance should be made.

8. *Surgery.* Surgical consultations should be held early and often, in view of the large number of patients who require surgery. There must be access without delay to hospitals well equipped for thoracic surgery.

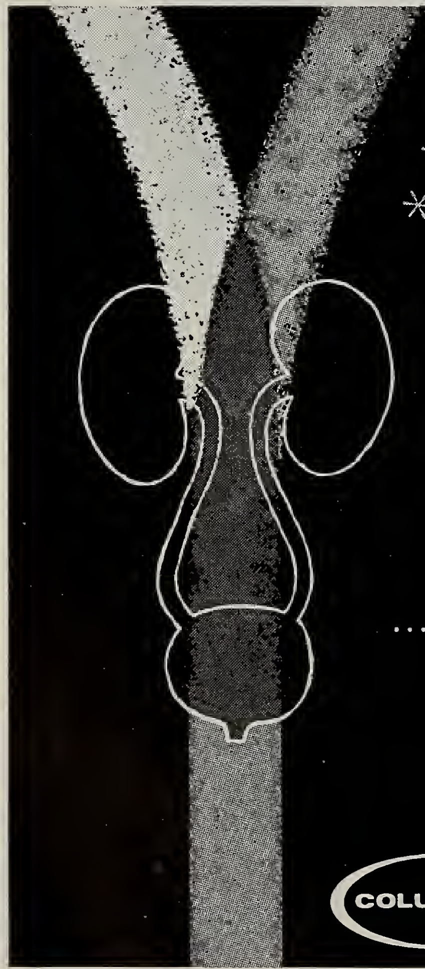
9. *Adjunct services.* All auxiliary services such as recreation, occupational therapy, education, medical social service, and rehabilitation should be available from the beginning of the treatment period.

10. *Follow-up.* Long term clinical, radiographic, and bacteriologic follow-up is essential after the patient returns to community life and should be available in order to detect a possible relapse.

11. *Patient education.* It is essential for the patient to understand his disease for successful and permanent recovery. Patient education by the physician, assisted by the nurse and others, thus becomes of major importance in treatment.

The patient with tuberculosis needs all of the mentioned services during various periods of his disease and treatment. Neither home care nor hospital care that fails to provide these services can be considered adequate at this time. It has not yet been proved that even the less destructive forms of tuberculosis can be treated adequately without these aids, although many studies are now in progress.

Most patients would benefit and could be assured of better success if treatment were initiated and continued in a hospital for as long as indicated before being continued in the home. It seems obvious that these necessary facilities and services can best be provided in a hospital during the active stages of the disease. During subsequent phases, these services should be made available to the patient at home.



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his graph is adapted
rom Altemeier, Cul-
ertson, Sherman, Cole,
lstun, & Fultz.[1]

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Curiosa et Trivia

William B. McCunniff, M.D.

American hospitals cared for more than twenty-one million patients in 1955, a new all time high.

Aretaeus of Cappadocia, in Asia Minor, in the first century A.D. described a one sided headache. Galen, about fifty years later, named it "hemicrania." The term, over a few centuries, evolved down to "migraine."

Statutes in Connecticut and Massachusetts, passed in 1879, prohibit a physician from giving birth control advice.

Despite the tragedy involved, the 1956 airliner collision in Arizona is outranked by ten worse catastrophes in the U. S. within the last fifteen years.

Despite the virtually unanimous claims that narcotic addiction started in the course of medical treatment, only about 5 per cent are proven to be valid. The vast majority are "social" addicts.

The incidence of infectious hepatitis in the U. S. doubled between 1952 and 1954.

Capsule Clinics

I. A. Wien, M.D.

- The one characteristic clinical distinction between paralytic ileus and mechanical obstruction of the intestine is the absence of peristaltic sounds in paralytic ileus. Mayo, C. W.: Surgery of the Small and Large Intestine, Year Book Publishers, Inc., Chicago, 1955.
- Ulcerative colitis in 90 per cent of the cases is initiated in the rectal colon and spreads upward; in 5 per cent of the patients it starts in the right side of the colon while in still another 5 per cent of the cases it is regional, at times being in more than one portion. Mayo, C. W.: Surgery of the Small and Large Intestine, Year Book Publishers, Inc., Chicago, 1955.
- In the matter of intractable distress from peptic ulcer, if the physician is satisfied that the best medical management possible for this particular person has been achieved over a period of two years and the syndrome still exists, this patient should have the benefit of surgical therapy. Raleigh, G. W.: Surg. Clin. N. America **34** (Febuary) 1954.
- In acute cholecystitis perforation of the gallbladder with subsequent production of bile peritonitis and subhepatic and subphrenic abscesses is the end point most to be feared, though it is fortunately not the usual one nor an inevitable one. Lounsbury, B. F.: Surg. Clin. N. America 34 (February) 1954.

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Missouri Medicine in Review

Leo H. Pollock, M.D.

FORTY YEARS AGO

At the meeting of the St. Louis Medical Society, a letter from Dr. John Green, Jr., pertaining to the establishment of a Physicians' Bureau of Business similar to the one maintained under the auspices of the Wayne County (Michigan) Medical Society, was read and referred to the secretary with instruction to obtain all possible information on the subject and present before the General Society.

The regular meeting of the Buchanan County Medical Society was held at their rooms Wednesday evening, November 1, with twenty-seven members present and the president, Dr. Charles Greiger, in the chair. At the suggestion of the chair, it was moved and carried that the Society adhere to Section 4, Chapter 3, of the bylaws of the Missouri State Medical Association, which reads as follows: "No address or paper read before the Association, except that of the President, shall occupy more than twenty minutes in its delivery; and no member shall speak longer than five minutes, nor more than once on any subject."

The Lewis County Medical Society met at Monticello, October 12. The meeting was called to order by Dr. George P. Knight, president. It was moved that all members of the Society make no examination for old line insurance for less than $5. Seconded and carried. It was moved that all members refuse to make examinations for the Missouri State Life Insurance Company as long as they have osteopaths for examiners. Seconded and carried.

The Webster County Medical Society held its quarterly meeting at the home of Dr. E. M. Bailey, Elkland. Dr. Highfill reported a case of diabetes and treatment with the starch method which was successful, the patient in three days being improved until he was able to be up.

In the last session of the legislature one of the representatives from Jasper County introduced a bill to license chiropractors to treat the sick and injured. On being questioned by members of the Jasper County Medical Society as to the bill this legislator explained that he thought the bill was to license chiropodists, admitting that he did not know the real purport of the measure he introduced. It behooves the medical profession of this state to assist their senators and representatives at the next session of the legislature. These men need light on medical and sanitary subjects. They can get it only from the regular medical profession.

The American College of Surgeons closed its third annual session at Philadelphia, October 27. From a list of 2,500 applicants for Fellowship 200 have been admitted during the last year. The policy of the regents is "to admit only those surgeons who beyond all reasonable doubt are honest and competent." Dr. George W. Crile was elected president of the College and chairman of the board of trustees, Dr. Rudolph Matas was elected first vice president, Dr. Robert G. LeConte was elected second vice president, Dr. Franklin H. Martin reelected secretary.

The Southwest Missouri Medical Association held its semi-annual session at Springfield, November 9 and 10. About one hundred members attended the meeting.

TWENTY-FIVE YEARS AGO

Dr. Guido Holzkneck, of Vienna, credited as the discoverer of the therapeutic value of roentgen rays, died October 31, a martyr to his roentgen-ray experiments. Overexposure to the rays caused cancer and first a finger and then an arm was amputated in a vain attempt to save his life. He was 60 years old.

The St. Louis Dental Society will hold its Diamond Jubilee to celebrate the seventy-fifth anniversary of its organization December 7 to 9 at the Hotel Jefferson.

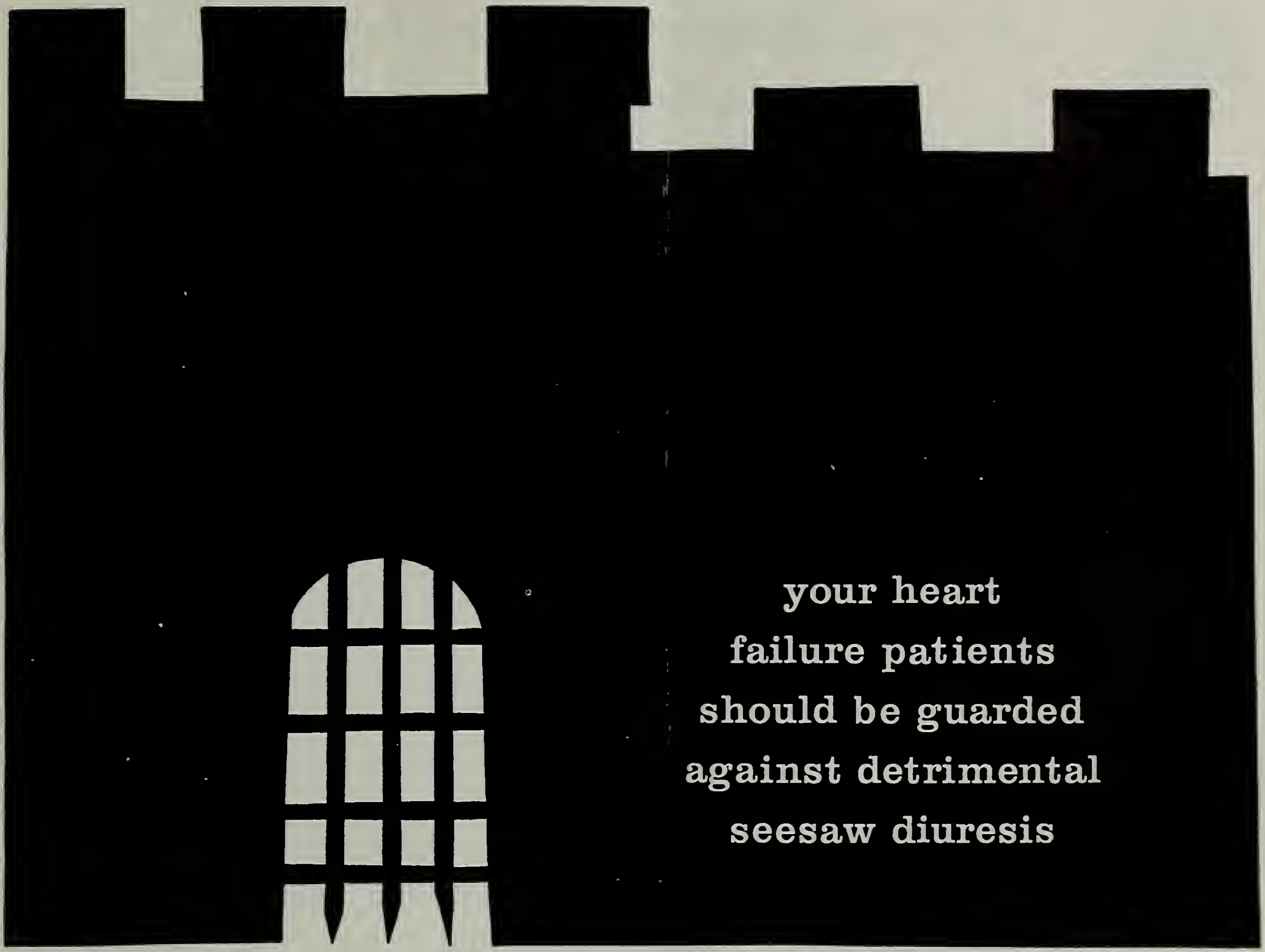
The sixteenth annual clinical session of the American College of Physicians will be held in San Francisco, California, April 4 to 8, 1932. Dr. S. Marx White, Minneapolis, president of the college, is in charge of the selection of speakers and subjects on the general program and Dr. William J. Kerr, San Francisco, is the general chairman of the session and in charge of local arrangements.

Dr. Otto H. Warburg, Berlin, Germany, scientist and cancer specialist, was awarded the 1931 Nobel Prize in medicine October 29 for his studies of the respiratory organs. Last year's Nobel Prize in medicine was awarded to Dr. Karl Landsteiner, of New York City.

Dr. Edward F. Biewend, St. Louis, a graduate of the St. Louis College of Physicians and Surgeons, 1886, died October 20 of a heart stroke following an operation in St. Anthony's Hospital. He had been ill for a year preceding the operation. He was 75 years old. Dr. Biewend was born in St. Louis and received his preliminary and part of his medical education there. He studied in Germany under Dr. Robert Koch, his cousin, for several years following the completion of his medical course.

The regular monthy meeting of the Adair County Medical Society was held November 5 in

(Continued on page 1066)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Missouri Academy of General Practice

J. H. Trolinger, M.D.

New Component Chapter, Missouri Academy of General Practice

Returning from Jefferson City barely in time to assemble this monthly stint, we find a few reflections upon the Eighth Annual Assembly of the MAGP inescapable. This year's meeting was by far the best attended yet, but still too small a percentage of our five hundred ten active members registered. The scientific papers were, for the most part, excellent. The exhibitors seemed quite up to their usual high standards. The fellowship and conviviality were enjoyable as always. However, the highlight of the entire session was undoubtedly the address by Dr. J. S. DeTar, President of the American Academy of General Practice. Fortunate indeed is any organization to be led by such a dynamic, brilliant speaker whose unbounded energy and enthusiasm are so engagingly complemented by his personal warmth and sincerity. Incidentally, Dr. DeTar's tremendous efforts to improve the number, caliber and plight of the generalist; his inspiring leadership of the AAGP, and his unique contribution to American medicine in general are again to be reviewed soon in a national magazine. Watch for it in a forthcoming issue of *Medical Economics.* It would not be at all surprising to learn that many of the medical students who were guests of the MAGP were converted to the general practice of medicine as a result of Dr. DeTar's talks—both formal and informal.

HOTEL GOVERNOR

Drs. Trolinger, Eversoll, Glover, Hall, Pierce, Metz and Becker being installed by Dr. Dwyer.

At the conclusion of the business meeting Wednesday morning, October 24, officers of the MAGP for the ensuing year were installed as follows: President, Charles E. Martin, M.D., St. Louis; President-elect, R. R. Becker, M.D., Kansas City; Vice President, Preston C. Hall, M.D., St. Louis; Secretary-Treasurer, J. H. Trolinger, M.D., Jackson. Drs. Charles Metz, St. Louis, Roy Pearse, Nevada, and Marcus Bond, Kansas City, were elected to the board of directors. Delegates to the AAGP Assembly are Drs. Kenneth Glover, Mount Vernon, and Norton J. Eversoll, St. Louis, with alternates, Preston C. Hall, St. Louis, and R. R. Becker, Kansas City. Officers were installed by the retiring President, Dr. T. L. Dwyer, Mexico. Due to illness, Dr. Martin was unable to be present.

Plans for the 1957 Assembly of AAGP are nearing completion. The MAGP, and more particularly the St. Louis Chapter, are again honored to be hosts at the National Assembly to be held in St. Louis, March 25 to 18, 1957. This is the third time St. Louis has been so honored and is the only city in which the Scientific Assembly of the AAGP has been held more than once. Not the least of the reasons for St. Louis' distinction in this regard is the existence of the St. Louis Chapter of General Practice. All members of the MAGP are justly proud of the achievements of this component chapter. Its large membership is notoriously hard working and enthusiastic; its leadership consistently outstanding. Among those who will give unstintingly of their time and energy to assure the spectacular success of the Ninth Annual Assembly is Dr. Walter Gunn, president-elect of the St. Louis Chapter, and chairman of the local arrangements committee. He will be most ably abetted by his charming wife who is to head the ladies entertainment committee; Dr. Preston C. Hall, registration committee; Dr. Charles O. Metz, hospitality committee, and Dr. Walter C. Gray, scientific exhibits.

All Missouri physicians are urged to inform medical students, interns and physicians in military service who are planning a career in general practice of their eligibility to apply for $1000 general practice residency awards. Funds are provided by Mead Johnson and Company, Evansville, Indiana, who allow for an annual award of $1000 for each of ten medical graduates, to aid them in taking a residency in general practice. The program is administered by a committee of the AAGP. Application forms are available from the AAGP Headquarters Office, Volker Boulevard at Brookside, Kansas City 12, Missouri.

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*TRADEMARK

Woman's Auxiliary

Mrs. Charles *(Susan)* Shepard, *President*

"All work is as seeds sown; it grows and spreads and sows itself anew." This quotation from Thomas Carlyle seems particularly true of Auxiliary projects.

Continuing the tradition of the president to make personal visits to the county auxiliaries to observe them in action and to interpret the program recommended by our parent body, the A.M.A., to them, has been my pleasure this fall and will continue to occupy much of my time until our convention in Kansas City next April.

To date I have met with Franklin-Warren-Gasconade Auxiliary, a comparatively new auxiliary which has set a high example of cooperation in working together in the community. This group, like many of the rural auxiliaries, drive many miles to attend their meetings and each year sponsor a health education program for the community leaders. This year they featured Dr. Henry V. Guhleman, Jr., of Jefferson City, who spoke on "The Problem Child" and Mrs. Richard Sutter of St. Louis County, who spoke of the need for recruitment in health careers. The program was followed by a Tea.

Visiting Miller, Morgan, Moniteau Auxiliary gave me an opportunity to discuss some of the old and the new phases of Auxiliary work and to learn of their efforts and cooperation with the schools in their areas in Nurse Recruitment. This group does an outstanding job in distributing *Today's Health* magazine.

Saline County Auxiliary has raised funds for a Nursing Scholarship and although this is a small auxiliary they voted to contribute to A.M.E.F. and carry out much of the other work recommended.

Butler-Ripley-Wayne Auxiliary is holding regular meetings and are familiarizing themselves with our objectives. They have had great fun with the Doctor's Day celebration geared to create harmony and friendship. This is the newest of our auxiliaries and it was good to see their president and two other members at the state board meeting in Columbia.

South Central Auxiliary has the real problem of great distances to travel for meetings and so mostly confine their work to friendship meetings in connection with the medical society.

Jackson County, the largest Auxiliary in the state, has a program in keeping with their size. Their Nursing Loan Fund is financed by a Bridge Mixer each year; they have arranged an electrically transcribed radio program "Raising Up A Child" over a local station; have long been active in Civil Defense, Mental Health and recently won a prize in a Safety Contest.

Grand River Auxiliary studies Health Legislation, distributes *Today's Health* magazine, contributes to A.M.E.F., have arranged several radio programs provided by A.M.A. Bureau of Health Education and study all phases of the Auxiliary program.

St. Louis County Auxiliary combined a membership tea with a novel presentation of the year's work program, by having each chairman model the latest fashions, with a commentator describing their clothes and then the work objective was outlined. Set to music, it made an entertaining and educational program. This group has twenty-two committees and is very active. Their Medical Society often tell them they consider them their best Public Relations agents.

St. Louis City Auxiliary recently sponsored a meeting with Congressman Tom Curtis and Mrs. Leanore Sullivan speaking on current trends in legislation. A community program featuring Mr. Leo Brown, the Public Relations Chairman of A.M.A., was given in November. His topic was, "The Meaning and Contribution of A.M.A. in Safeguarding the Health of the Nation." This Auxiliary has excellent leadership and fine programs, yet I cannot but view with alarm the current trend of potential members to this Auxiliary who are working in hospital auxiliaries in St. Louis and are not giving their support to the medical profession's Auxiliary. Perhaps the doctors need to become more familiar with the program and objective of the Auxiliary and to encourage the support of their wives.

Greene County Auxiliary is always a highlight in the president's tour. They are using a novel method to raise funds for the A.M.E.F. by use of "The Traveling Food Basket" which is filled with some fresh baked item and given to a member who in turn contributes to the fund and within three days bakes and sends the basket on to another member.

Boone County Auxiliary was our hostess for our already reported on Fall Board Meeting, and are carrying out many phases of our work as well as working toward the success of the new medical school and hospital.

These are the Auxiliaries I have visited to date (November 1) and near the end of my term of office I shall comment upon some of the highlights from the others. Obviously I have not tried to cover all of the activities undertaken by each group for this, may I suggest reading the Auxil-

(Continued on page 1105)

Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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Vol. 53 December, 1956 Number 12

The Vertebral Artery

Its Role in Upper Cervical and Head Pain

REVIS C. LEWIS, M.D., and DONALD F. COBURN, M.D., *Kansas City*

Recently we have been impressed by the apparent relationship between pain in the upper cervical region and head and by the demonstrable changes by arteriography in the blood flow through the vertebral artery with postural changes.

The problem of intractable pain in the head and in the upper cervical region has been a difficult one, and there has been much conjecture as to the basis for such pain. Fibrositis of the cervical musculature,[1] impingement of the second cervical root,[2] and bony or ligamentous injury of the cervical spine[3] each has its advocates as an etiologic factor. There may or may not be a history of preceding injury. Frequently the patient has been diagnosed as a neurotic.

Symptoms in the syndrome in patients with a traumatic or non-traumatic history are frequently the same. These individuals complain of pain in the upper cervical and suboccipital region, this pain radiating superiorly behind the ear or ears to the retro-orbital or supra-orbital region. When the pain is severe, there may be blurring of vision or diplopia. Associated unsteadiness on the feet is frequently mentioned in the patient's story. At times, true vertigo seems to occur, and nausea and even vomiting are not unusual. A complaint of stiffness in the neck is almost always elicited. Faulty neck posture seems to bear some relationship to the neck and head pain, and many patients state that they are awakened from a sound sleep by the pain. Tension and anxiety are seemingly common precipitating or aggravating factors.

Examination of patients in this group reveals cervical spine tenderness, particularly over the transverse process of the atlas on the side of the pain. Neck extension against resistance is painful. Hypoesthesia and hypalgesia in the occipital area are common and may be present as far anteriorly as the forehead. Lateral nystagmus is often encountered following rotation of the neck with the head forward or when the neck is extended for a few seconds. Prolonged neck extension may result in a feeling of faintness, and it may initiate the patient's pain.

We have had the opportunity recently of doing vertebral angiograms on several patients, each of whom was felt presented an organic problem. Technic has followed that outlined by Sugar et al.[4] in his pioneer work. Injections were made in the vertebral artery between the fourth and fifth or fifth and sixth transverse processes using a No. 19 gauge spinal needle. For most of our cases, 30 per cent Urokon has been used, but in a few we have employed 50 per cent Hypaque. Four consecutive films were taken with one injection of dye, approximately 10 cc., over an approximate four second period, utilizing a manually-operated rapid cassette changer. We were not cognizant of any reaction from the injection of either substance in this group. All injections were made while patients were under anesthesia with Pentothal Sodium, and Procaine solution (1 per cent) was infiltrated at the site of the skin puncture. Flexion and extension were done through as great a range as possible after films in the neutral position were made.

In eleven of the patients, we have demonstrated constriction or occlusion and partial or complete occlusion of the vertebral artery in different positions of the neck. The site of occlusion was varied, being seen from the level of the C2-C3 facet cephalad to the beginning of the basilar artery. Also, encroachment of the vertebral artery by osteophytes extending laterally has been noted.

A brief summary of some of the case records will clarify the findings.

REPORT OF CASES

Case 1. Partial occlusion of the left vertebral artery at the superior aspect of the first cervical vertebra.

V. S., female, aged 43, complained of pain in the left posterior head and neck. With severe headache she also experienced nausea, vomiting and vertigo. There was some double vision at times. Examination revealed tenderness over the left second cervical transverse process. Extension of her neck aggravated the head pain and made her dizzy. Her gait was unsteady and she was unable to balance herself on the left foot. Left vertebral arteriography demonstrated a partial block in the artery at the superior border of the first cervical vertebra.

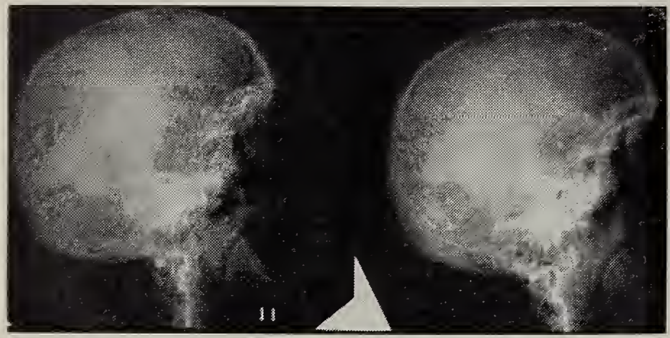

Fig. 1. Case 1. Partial occlusion of the left vertebral artery at the superior aspect of the first cervical vertebra.

Case 2. Obstruction of the vertebral artery between C1 and C2 with the neck extended but with no obstruction when the neck was in a neutral position and with displacement of the right vertebral artery by pressure from osteo-arthritic spurs at the C5-C6 level.

J. W., female, aged 52, complained of periodic attacks of vertigo accompanied by nausea, vomiting and occasional tinnitus. Blurring of vision and diplopia as well as right occipital headache had also troubled her at times. The first attack of vertigo had occurred fourteen months preceding this examination. She also complained of fainting sensations and stated that these and the headaches were worse when she was tense. Examination revealed a positive Romberg, lateral nystagmus after head shaking, hypesthesia of the right occipital and supra-orbital regions, hyperactive knee jerks and tenderness over the right suboccipital triangle. X-ray films of the skull and an electroencephalogram revealed no abnormalities. Caloric testing resulted in persistent backward falling with marked vertigo and nystagmus, the latter two findings being more prominent when the right ear was tested. There was spontaneous rotary nystagmus to the right, only in the caloric testing on the right. The spinal fluid findings were normal. Vertebral arteriograms revealed obstruction of the column of dye between the first and the second cervical vertebra, but only when the neck was extended. Lateral displacement of the vertebral artery by an osteo-arthritic spur also was seen at the C5-C6 level.

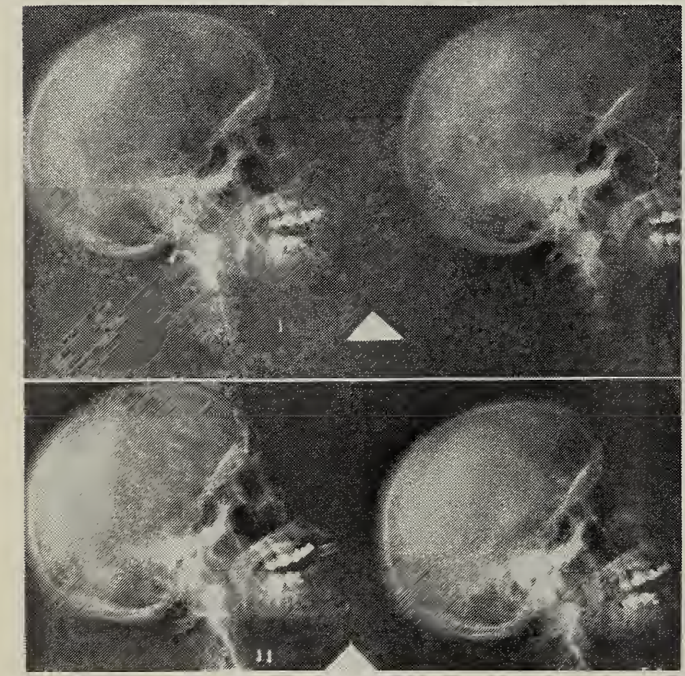

Fig. 2. Case 2. A. Intracranial dye from injection of the right vertebral artery with the head flexed. B. Failure of dye to enter the skull with injection of the right vertebral artery with the head extended.

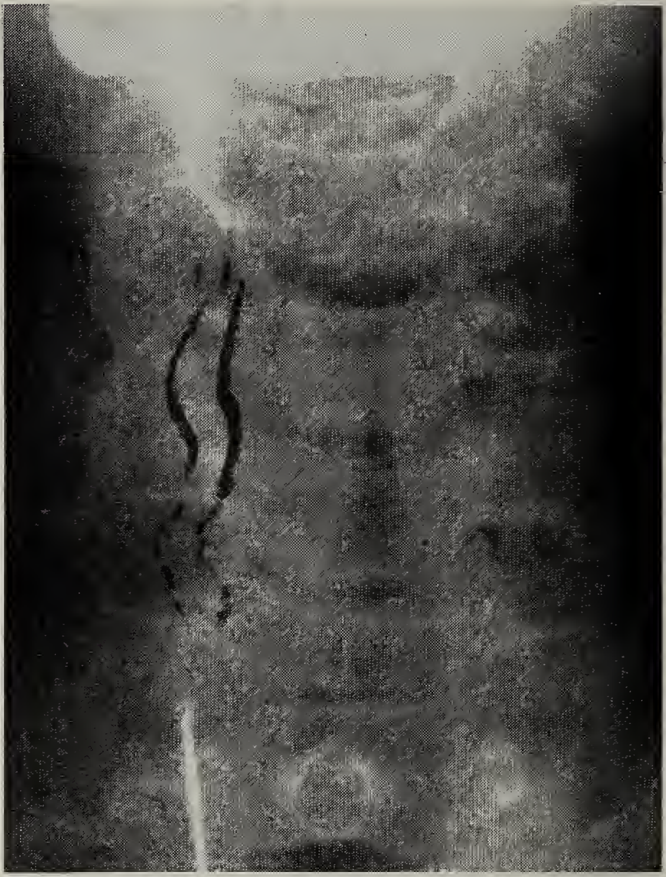

Fig. 3. Case 2. Course of the right vertebral artery showing displacement by osteo-arthritic spurs (dye visible on x-ray film).

Case 3. Obstruction of the right vertebral artery at the C1 level with the cervical spine in neutral position.

E. C., female, aged 51 years, had noted double vision for six weeks and right suboccipital and orbital aching for three weeks. She had vomited frequently on the three days preceding her first examination. The examiner noted a transient left horizontal nystagmus, diplopia at distances beyond ten feet, and hyperesthesia and hyperalgesia of the left forehead. Severe headache and vomiting developed, and she was admitted as an emergency patient eight days later. Carotid arteriograms were normal. Right vertebral arteriography re-

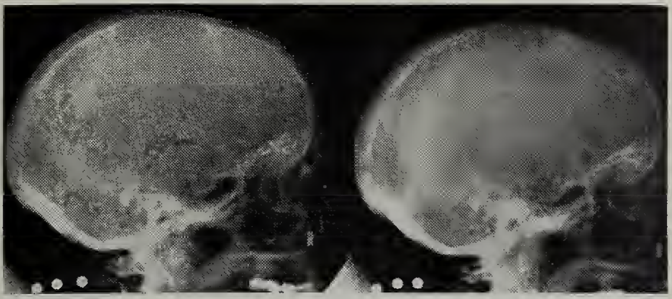

Fig. 4. Case 3. Obstruction of dye in the right vertebral artery at the superior border of the arch of the atlas.

vealed an occlusion of the artery at the arch of the atlas. Spinal fluid examinations and pneumoencephalograms were normal.

Case 4. Obstruction of the left vertebral artery at the C2 level with the neck extended.

L. K., female, aged 42, complained of posterior head pain with bitemporal radiation of six years' duration. The head felt to her as though it were in a vise, and the face and arms tingled at times. There had been severe pounding headaches for two years and associated nausea with occasional vomiting. Examination revealed tenderness over the fifth and sixth cervical spinous processes and also over the skull posteriorly. Extension of the neck was painful and resulted in lateral nystagmus. Cervical spine x-ray studies were not striking. The spinal fluid findings were normal. A left vertebral arteriogram revealed an obstruction to the vessel at the level of the second cervical transverse process with the neck in extension. Bilateral occipital nerve injection relieved the patient of her headache.

Case 5. Occlusion of the left vertebral artery at the atlanto-occipital joint with the neck in extension or neutral position.

M. M., female, aged 29, complained of pain in the back of the head and neck with radiation into both shoulders. Her symptoms followed an automobile accident two years before in which she was thrown out of the car but was not unconscious. Examination revealed a decrease in sensation in C2 dermatome bilaterally and diffuse cervical spine tenderness, the latter being most marked over the transverse processes of the atlas. Cervical myelography and spinal fluid findings were normal. Left vertebral arteriography demonstrated the artery to be occluded at the atlanto-occipital joint when the neck was extended or in neutral position. Bilateral suboccipital procaine infiltration resulted in relief of pain for several days.

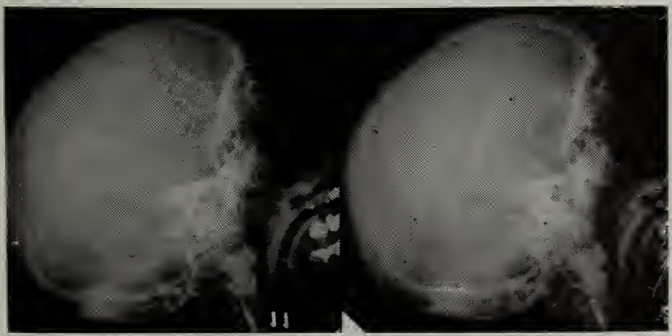

Fig. 5, Case 4. Obstruction of dye in the left vertebral artery at the junction of the first and second cervical vertebra with the head extended.

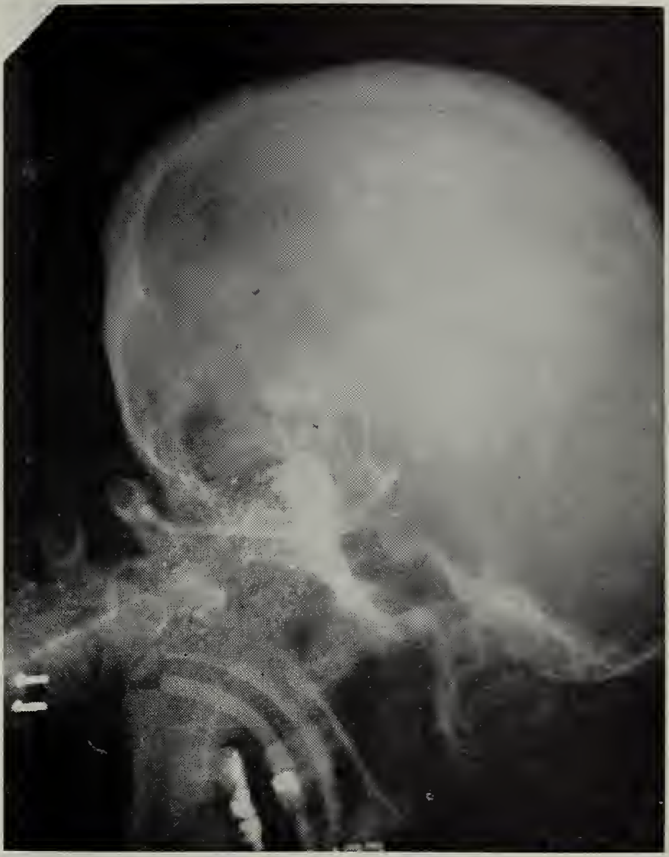

Fig. 6. Case 5. Dye passing freely through the left vertebral artery with the head in neutral position.

Case 6. Occlusion of the left vertebral artery at the junction with the right vertebral artery.

D. W., aged 34, developed hiccoughs three weeks previously, and there was associated pain in the right posterior head, dizziness and nausea. His gait had become unsteady, and he was unable to work. Examination revealed a left Horner's syndrome, intention tremor of the left arm, bilateral horizontal nystagmus, and sensory decrease for pain and temperature over the left face and right trunk. The spinal fluid cell count and the total protein were normal although an earlier examination revealed ten lymphocyte and seven polymorphonuclear cells with a normal total protein content. A left vertebral arteriogram revealed occlusion of the artery at its junction with the right vertebral artery and no filling of the basilar artery.

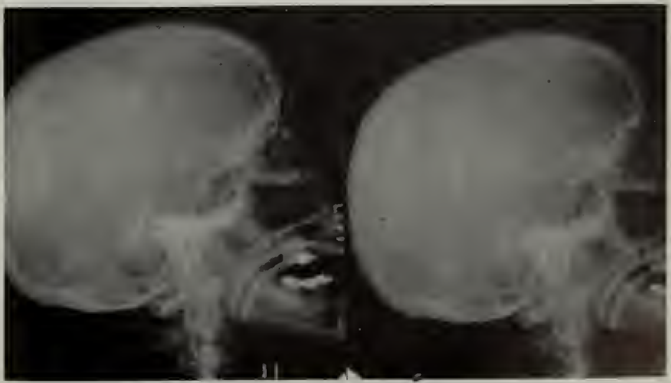

Fig. 7. Case 5. Obstruction of dye in the left vertebral artery at the level of the first cervical vertebra with the head extended.

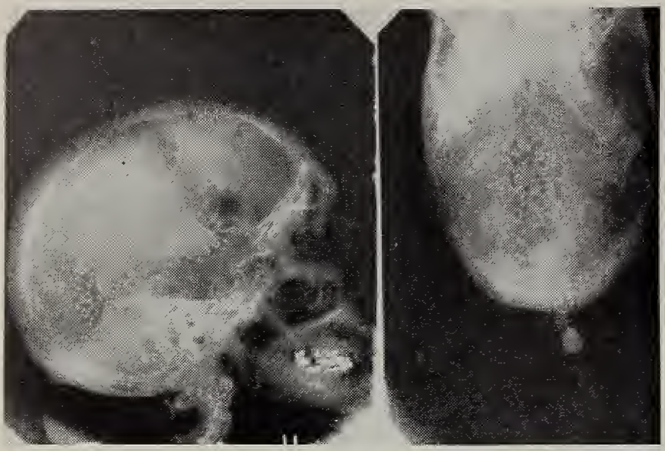

Fig. 8. Case 6. Obstruction of dye at the junction of the left vertebral artery with the right vertebral artery.

Case 7. Partial occlusion of the left vertebral artery at its junction with the basilar artery.

C. B., male, aged 40, complained of severe upper neck and bilateral posterior head pain of five days duration. The pain seemed to extend to behind the eyes. He stated that he had been nauseated and unsteady since the onset of the pain. Examination revealed that extension of his neck made him dizzy. He was tender over the transverse process of the second cervical vertebra bilaterally. A left vertebral arteriogram showed occlusion of the artery at the upper border of the first cervical vertebra when the neck was extended. In the neutral position the dye revealed a partial occlusion of the vertebral artery at its junction with the basilar artery.

Case 8. Partial obstruction of the right vertebral artery at the level of the second cervical vertebra.

C. S., female, aged 23, stated that she had experienced pain in the back of the head on the right side for several months. She also complained of tenderness over the right side of the head. Neurologic examination revealed no striking findings. A right vertebral arteriogram showed a partial obstruction of the vessel at the level of the second cervical vertebra.

Case 9. Partial occlusion of the right vertebral artery in extension of the neck.

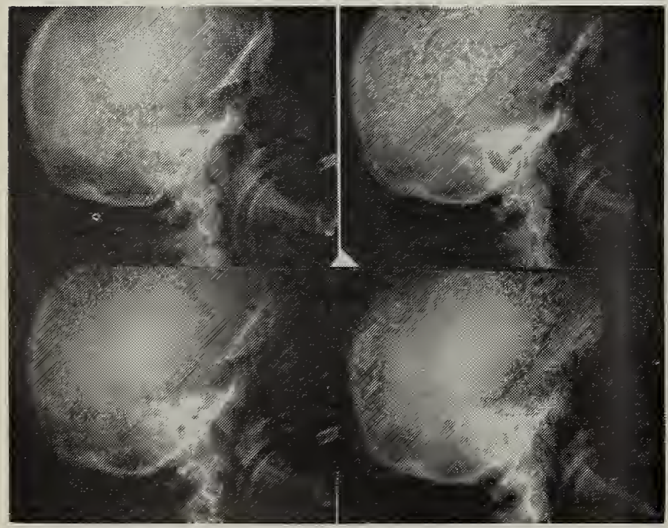

Fig. 9. Case 7. Partial obstruction of dye in the left vertebral artery at its junction with the basilar artery.

N. J., female, aged 27, complained of pain of five to six years duration in the right side of the face in the second division of the trigeminal nerve. More recently she had noticed pain in the superior two thirds of the right face, scalp sensitivity, stiffness of the neck and some right upper limb discomfort. Also, she had been nauseated with the pain and was dizzy on two occasions when the pain was severe. On examination there was tenderness over the right suboccipital triangle with increased tension of the right posterior cervical muscle bundle. There was also tenderness over the right greater occipital nerve. X-ray films of the cervical spine revealed increased mobility in the upper cervical region. Right vertebral angiography showed a marked diminution of blood flow into the posterior fossa when the neck was hyperextended.

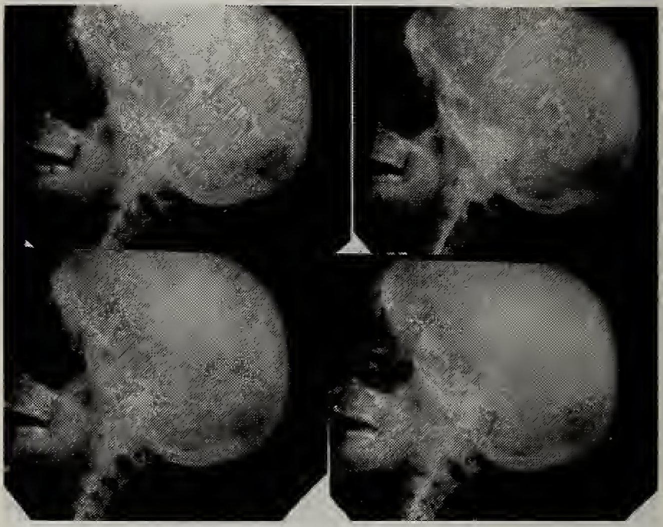

Fig. 10. Case 8. Partial obstruction to dye in the right vertebral artery at the level of the second cervical vertebra.

Case 10. Occlusion of the right vertebral artery with the neck extended.

L. O., male, aged 36, had a history of sudden onset of pain in the right frontal region about twenty-four hours before he was seen. The pain was followed shortly by numbness in the left limbs and, to a lesser degree, by numbness in the left face. He recalled a similar attack of pain without numbness ten days earlier. Examination revealed a generalized diminution of pain sense of the left limbs with faint abdominal reflexes on the left, and a plantar extensor response on the left. There was no stiff neck. The spinal fluid findings were normal as were the x-rays of the skull and chest. Right carotid arteriography was normal. Right vertebral

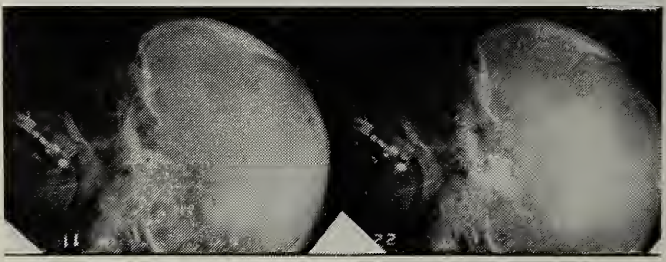

Fig. 11. Case 9. Partial obstruction to dye at the superior border of the first cervical vertebra with the head extended.

arteriography showed a partial occlusion of the vertebral artery between C2 and C3 and no dye entering the skull.

Case 11. Obstruction of the right vertebral artery at the level of the first cervical vertebra with the head extended.

T. B., female, aged 49, complained of vomiting and of severe right sided headache from the right forehead to the neck. She had been troubled intermittently with such headache for five years. Examination revealed tenderness over the second cervical transverse process on the right. Extension of her head brought on pain in the right side of the head. There was a decrease of sensation for pin prick in the distribution of the right greater occipital nerve. Right vertebral arteriography showed an obstruction of the artery at the level of the first cervical vertebra when the head was extended.

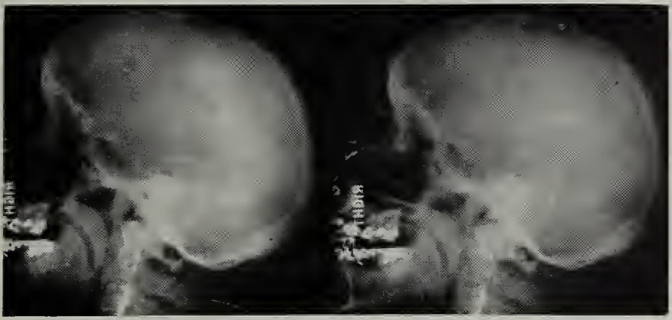

Fig. 12. Case 10. Obstruction to dye in the right vertebral artery at the junction of the second and third cervical vertebra with the head extended.

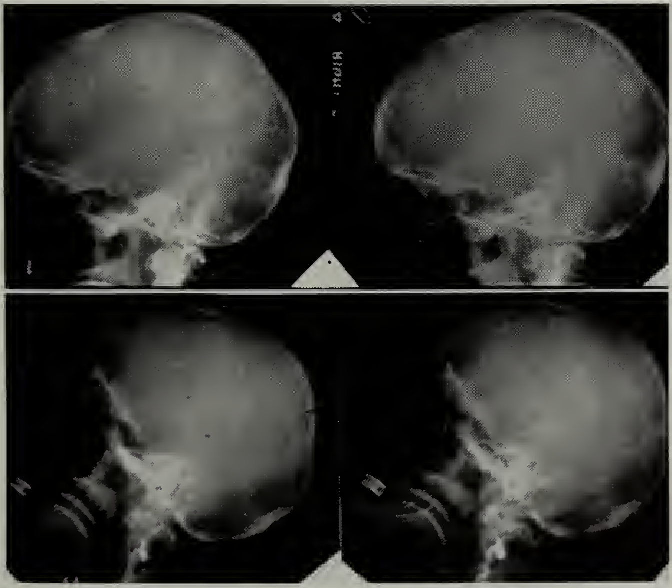

Fig. 13. Case 11. A. Intracranial dye following injection of the right vertebral artery with the head flexed. B. Obstruction to dye in the right vertebral artery at the level of the arch of the atlas with the head extended.

Observations made in these cases would seem to allow for much speculation. It is our impression from the work of others[5] that the vertebral artery is sensitive to painful stimuli. We feel that compression of the vertebral artery by a hypertrophic spur or by angulation secondary to cervical muscle spasm could produce head pain. Furthermore, we feel that numerous symptoms which patients describe such as dizziness, nausea, transient diplopia and faintness may well be due to temporary interference with the circulation through one of the vertebral arteries. We would like to speculate that many individuals who have so-called migraine have interference with vertebral artery circulation and its effect on the distal areas supplied, namely, the temporal and occipital lobes. This latter speculation intrigues us because of the marked cervical muscle spasm seen in many people with so-called migraine. We also feel that in individuals who have a so-called whip-lash injury, some of the symptoms of which they complain are secondary to at least partial occlusion of a vertebral artery either as a result of direct trauma to the artery or as a result of secondary cervical muscle spasm.

CONCLUSION

In conclusion, we wish to state that in some patients with head pain it is possible to demonstrate by vertebral angiography an interference in circulation in that vessel with postural changes.

411 Nichols Road.

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BOOK REVIEW

ELECTROCARDIOGRAPHY, FUNDAMENTALS AND CLINICAL APPLICATION, by Louis Wolff, M.D., Visiting Physician, Consultant in Cardiology and Chief of the Electrocardiographic Laboratory, Beth Israel Hospital; Assistant Clinical Professor of Medicine, Harvard Medical School. Second Edition, Illustrated. W. B. Saunders Company, Philadelphia. 1956. $7.00.

This book explains how to understand and evaluate any electrocardiogram. It discusses the reason why various cardiac disorders produce abnormal tracings. One does not have to "remember" a certain pattern if he can learn to understand the changes in the electrocardiogram likely to result from any given area of injury in the heart.

Dr. Wolff gives the facts he has found useful in practice. He has a new section on myocardial infarction and one on arrhythmias.

The book is divided into a section on basic principles and one on clinical electrocardiography. The illustrations are clear, well documented, and carry a brief clinical case history or explanation.

This book should be helpful to all who are interested in learning about the subject, and especially to internists and cardiologists. It is a good reference work for use at the heart station and for use by resident physicians who are being trained in the heart station.

J. C. E.

Cysts of the Liver

BART F. WOOLDRIDGE, M.D., *Joplin*

CYSTS OF THE liver are etiologically separated into two varieties, parasitic and nonparasitic. Both of these, in turn, may be solitary or multiple.

Parasitic cysts of the liver are due to infestation by the larval stage (i.e., hydatid cyst) of the tapeworm, echinococcus granulosus, of which the dog is the common definitive host—and sheep, hogs, cattle and man the most usual intermediate hosts. The echinococcus granulosus is the smallest of the cestode group. The mature worm consists of three to five segments and is 3 to 6 mm. in length and its terminal proglottid contains ova. These ova are deposited with the feces of the host. The ova may contaminate grass, vegetables or water, and by ingesting such substances the intermediate host is infested. Humans are believed to become infested principally by contact with dogs. Once in the upper digestive tract of the intermediate host the ova liberate the hexacanth embryo. This in turn enters the venous channels of the portal system by boring its way through the wall of the upper small bowel. It is then carried by embolization until its arrest by the capillary network of the liver or other more distant viscera. Once arrested, it is transformed into a cystic structure, the beginning of the larval stage. As this grows in age and size two layers are laid down—an outer ectocyst and an inner endocyst or germinal layer. The ectocyst is a protective capsule formed by the reaction of the host tissues. The germinal layer produces small processes called brood capsules. These structures produce scolices which are the heads of the future tapeworms.

The cyst grows slowly, and not until the third month does it measure 2 mm. in diameter. The cycle is completed when the dog eats the infested liver or lung of sheep or cattle. Humans are most commonly infested during childhood, and many years elapse before the liver cysts reach large size.[5, 15, 17, 19]

Reported cases of hydatid cysts of the liver are relatively few in this country and cases in which the disease has been contracted in the United States are extremely rare. Carlquist and Dowell[2] in 1951 found only 548 reported cases in the United States and Canada, and of these only forty five presumably had been contracted in this country. By contrast, parasitic liver cysts are common in areas where sheep pasturage prevails, particularly Australia, Italy, Argentina and Uraguay.[7]

In about 85 per cent of cases the lesions are situated in the right lobe of the liver, either anteriorly or posteriorly located. Usually the cyst occurs singly, but according to various statistics multiple cysts occur in from 5 to 25 per cent of cases.[9] It is reported that some cysts die. Some authors report the death rate to be as high as 30 per cent.[5, 9] The death of the cyst may be due to its rupture, penetration of bile into the cyst cavity, or hemorrhage into it. When the cyst dies the contents tend to become inspissated and converted into a putty-like mass, associated with calcification. These calcified cysts are always dead and they cast a dense shadow on x-ray films.[13, 16]

Clinical symptomatology of the liver hydatid cyst varies in accordance with its situation, size and complications it may give rise to. Pain from pressure may be present. The cyst may cause pressure on the biliary system and may erode into the ductal system with resulting biliary colic, jaundice and secondary infection of the hydatid cyst. If the cyst ruptures into the peritoneal cavity it may cause an anaphylactoid shock. Rupture may also occur through the diaphragm into the pleural cavity or lung.[1]

The slow exchange of substances between the host and the cyst contents gives rise to a mild but chronic hydatid intoxication which may be manifested by the formation of host antibodies. These are responsible for eosinophilia, Casoni intradermal skin test and the Weinberg complement fixation reaction which may be present. Dead cysts which have undergone degeneration and calcification produce no antigen, and these laboratory tests are usually negative.[9]

In treatment it is singularly important to realize that hydatid fluid containing scolices is capable of forming new hydatid cysts by implantation, and the operative field should be carefullly protected. These cysts may be aspirated by trochar, and the cavity then filled with 40 per cent commercial formalin for sterilization. The endocyst may then be removed and the cavity either closed, packed or marsupialized. Calcified cysts offer sufficient resistance to permit a blunt dissection removal if peripherally located. Choledochotomy with drainage may be necessary to obviate obstructive jaundice and provide free drainage when the cyst has eroded the ductal system of the liver.[9, 11, 14]

Nonparasitic cysts of the liver are of three types: (1) Cysts associated with polycystic disease, (2) neoplastic cysts, and (3) retention cysts. In polycystic disease the liver may be studded with multiple small thin walled cysts. These are of developmental origin and contain clear fluid.[3] They are of no surgical significance.

Neoplastic cysts may originate as bile duct cystadenoma or bile duct carcinoma. They may originate as dermoids or teratomas, or pseudocysts from degeneration or hemangiomas or lymphangiomas.[18]

Retention cysts are usually single and are probably related to local obstruction of the biliary tract or to aberrant bile ducts. They are more common in the right lobe and may attain huge proportions. They are usually intrahepatic, but may be pedunculated. Surgical excision, cystenterostomy or marsupialization are accepted treatment methods.[10, 12, 18]

CASE PRESENTATION

A 48 year old white single female was seen because of dull aching epigastric and right hypochondral distress for the preceding year. There had been associated intermittent nausea and vomiting, but no jaundice, chills, fever or melena. She complained of mild fatty food intolerance.

Past history was essentially negative except for an appendectomy ninteen years previously. She had spent most of her life in eastern Tennessee and had never been out of the United States.

Physical examination revealed a well developed and nourished white female in no acute distress. There was mild pressure tenderness in the epigastrium and hypochondral areas. There were otherwise no postive physical findings. Hemogram, urine analysis, cholecystogram, gastrointestinal x-ray series and liver function studies were all within normal limits. A mottled area of calcification in the right lobe of the liver near the anterior border, seen on roentgenogram, suggested a calcified cyst (fig. 1).

Laparotomy was carried out and further exposure facilitated by a right anterior thoracic extension with section of the diaphragm. The calcified area seen on roentgenogram was represented by a pearly white, thick walled cystic mass, peripherally located anteriorly and superiorly in the right lobe of the liver. There was mild surrounding peritoneal reaction. The cystic lesion was excised, mainly by blunt dissection, with ligation of several adjacent venous channels. The cavity was then partially obliterated with gelfoam pledgets and catgut mattress sutures. External drainage was provided (figs. 2 and 3).

Pathologic report revealed a tough fibrous capsule enclosing greyish white caseous material. No cellular reaction was apparent (fig. 4). The final pathologic diagnosis was hepatic cyst showing degeneration and calcification, etiology unknown. The postoperative course was uneventful and without complications.

COMMENT

The exact nature of this cyst is somewhat perplexing. Hudson[8] has reported three cases present-

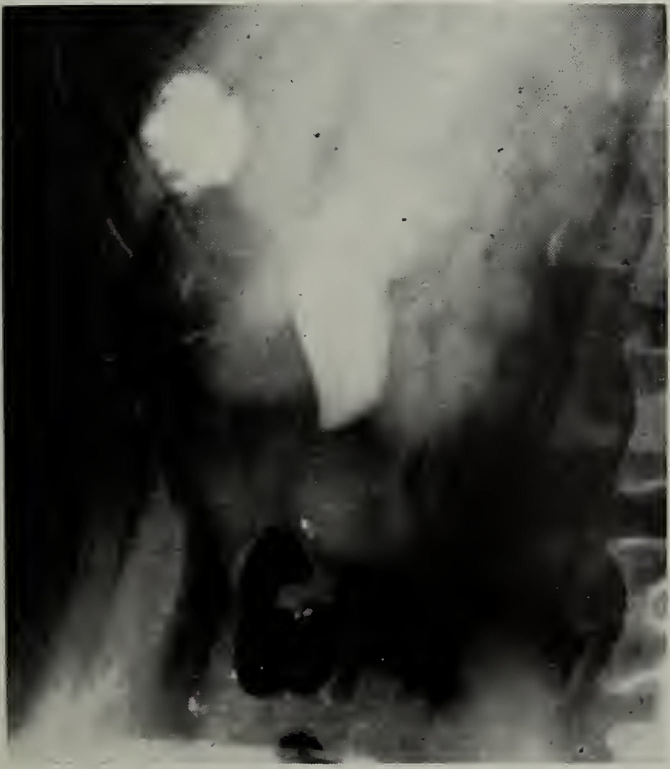

Fig. 1. Cholecystogram showing normal appearing gallbladder and the mottled area of calcification, suggesting a calcified cyst of the right lobe of the liver.

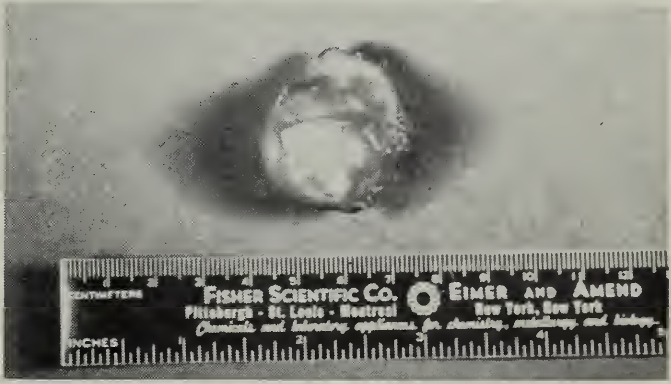

Fig. 2. Photograph of the excised cyst of the right lobe of the liver.

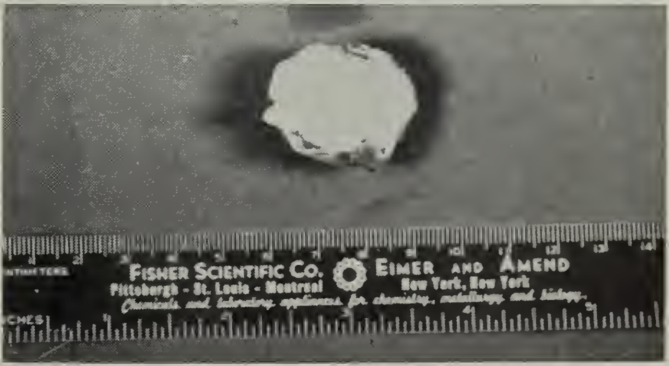

Fig. 3. Photograph of the excised liver cyst after hemisection. The tough fibrous capsular wall and the thick inspissated material as contents are apparent.

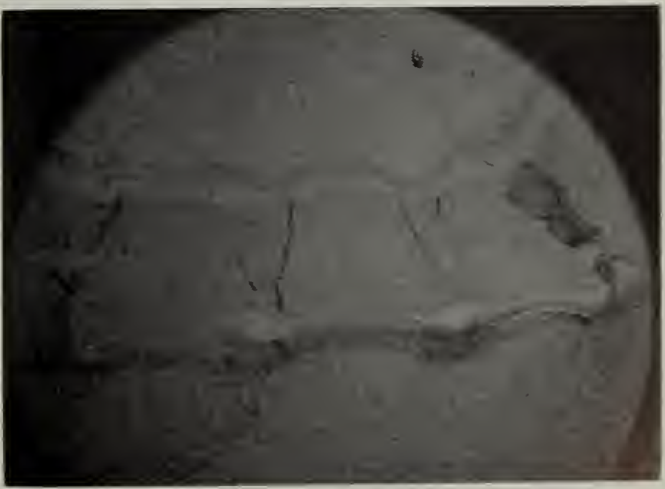

Fig. 4. Photomicrograph of a portion of the cyst wall showing the lack of cellular reaction, the thick fibrous wall of the cyst and the adjacent liver tissue.

ing similar roentgenologic appearances, one of which was demonstrated to contain echinococcus scolices. The possibility of this cyst being a burned-out hydatid or a calcified hemangioma or lymphangioma would seem to be the most likely possibilities. Casoni and complement fixation studies would undoubtedly have shed little light on the etiology because of the inactive nature of the cyst.

SUMMARY

The nature of cysts of the liver has been reviewed with reference to etiology, together with a brief discussion of diagnosis and treatment. An unusual case of calcified cyst of the right lobe of the liver treated by surgical excision has been presented.

First National Bldg.

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Missouri Medicine in Review

(Continued from page 1046)

the office of Dr. J. W. Martin, Kirksville. There was a general discussion on the decrease in the income of physicians in this territory. The opinion seemed to prevail that the average decrease was in the neighborhood of 25 per cent.

For the first time in two years the Atchison County Medical Society met at Tarkio, November 3. There were five members present. Dr. E. B. Kenner, Westboro, pleaded for better and more frequent meetings and moved that the Society unite with Holt and Nodaway counties in an effort to organize a tri-county medical society. The motion was seconded and carried.

The annual meeting of the Ninth Councilor District, composed of the counties of Audrain, Boone, Howard, Callaway and Montgomery, was held at Mexico, Thursday, October 22. The guest speakers were Dr. Jabez N. Jackson, Kansas City, past president of the Missouri State Medical Association, and Dr. C. C. Conover, Kansas City.

The October meeting of the Randolph-Monroe County Medical Society was held at Moberly with the president, Dr. D. A. Barnhart, Huntsville, in the chair. In a rather informal way, fees and services in general were discussed. Dr. Thomas S. Fleming, Moberly, suggested that $2 be charged for day calls and $3 for calls after 7:00 p.m. No action was taken.

TEN YEARS AGO

A Springfield Unit of the Missouri Division of the American Cancer Society was organized on October 24 under the sponsorship of the Greene County Medical Society and the Women's Field Army of Springfield.

Frank R. Bradley, M.D., St. Louis, has been installed as president of the American College of Hospital Administrators.

The Randolph-Monroe County Medical Society met in Moberly, November 14, with thirteen members present. Mr. Raymond McIntyre, Field Secretary of the Missouri State Medical Association, explained a plan for reactivating county medical societies by hyphenating several into one. D. D. Stuart, M.D., Brunswick, and G. W. Hawkins, M.D., Salisbury, representing the Chariton County Medical Society, officially voted to hyphenate with Randolph-Monroe County Medical Society which unanimously voted to accept the hyphenation.

The South Central Counties Medical Society held a dinner meeting at the El Patio Hotel in Cabool on November 15 with the following members and visitors present: Drs. J. R. Mott, Hartville; J. A. Fuson, Mansfield; R. W. Denney and A. C. Ames, Mountain Grove; S. M. Edens and Garrett Hogg, Cabool; C. F. Calihan, Willow Springs; Deborah Doan, Bakersfield; Eugene J. Schwartz and A. Denton Vail, Springfield. After dinner the meeting was called to order by the president, Dr. J. R. Mott.

The St. Francois-Iron-Madison-Washington-Reynolds County Medical Society met October 31 at the State Hospital in Farmington with sixteen members present. Guests were Dr. Bernard Sinner and Mr. Raymond McIntyre, St. Louis.

At the business meeting there was a full discussion regarding the proposed new hospital in St. Francois County. It was agreed that with the addition to be added to the Bonne Terre Hospital that hospital facilities in this district would be adequate. By a unanimous vote of all the members present a statement was approved opposing the bonding of the county for the hospital and this statement was submitted to the newspapers of the county for publication.

The Use and Misuse of Antimicrobials

HENRY C. SWEANY, M.D., *Mount Vernon*

IT IS MOST FITTING at this time to take stock of recent antibiotics or, more properly, recent antimicrobials. It is a recognized fact that a "golden" era of medicine has resulted from their effect on infectious diseases. It probably will be only a matter of time until every infectious process plaguing man and animals will be brought under control by the use of drugs known at present, or by new ones that will be discovered in the near future. Antimicrobials have not only eliminated or controlled many diseases, they have compelled a better understanding of the diagnosis and treatment of infections diseases and, therefore, have improved the practice of medicine itself.

For a better administration of the various antimicrobials there has been praise-worthy cooperation from the great drug houses in assisting the physicians, not only by preparing drugs, but by preparing special protocols for drug administration. They also furnish diagnosis kits whereby the sensitivity of the bacterial growths can be determined within twenty four hours or less, provided there are culture plates and an incubator available. Then there is always the Public Health Laboratory which will assist in diagnosis of more difficult cases. As in the past Loeffler's blood serum for diphtheria was taken and sent to the Laboratory, so other specimens may be sent to the Public Health Laboratory for diagnosis today.

Another aid to the physican has been the rather prompt and appropriate passage of state and federal laws to prevent dispensing of antimicrobials over the counter in drug stores. In addition to this, most druggists cooperate with the medical profession in helping to prevent the indiscriminate administration of antimicrobials.

In considering the misuse or improper use of antimicrobials, one might list several categories in which errors may be committed. First of all one must realize that antimicrobials are almost an ideal therapeutic weapon for the physician against disease, but there are also collateral responsibilities against careless administration. A big game hunter who shoots at every moving bush soon gets into trouble; the physician who shoots with his syringe before a proper evaluation of the disease is making a similar error. No physician should "give a shot" for every minor complaint suspected of being an infection and then trust to luck. The giving of the wonderful new drugs, therefore, preemptorily and indiscriminately is to be condemned. There are already too many resistant microorganisms going the rounds that require larger dosage or a change to other antimicrobials or both. There are already too many patients being sensitized to the drugs to permit careless practice. As a result of careless methods, practice has become more difficult and the precious advantage which antimicrobials have given is being lost.

There are more excusable situations in which a particular disease may be febrile and may simulate an infectious disease, yet it may not be a disease that will yield in any way to any antimicrobial. For example, the Pel-Ebstein fever cycle in Hodgkin's Disease; some of the sclerosing diseases; some leukemias; infectious mononucleosis, probably of viral origin, and many other virus diseases. Some viruses, however, have the cunning knack of working under cover of some other infectious process, like a virulent streptococcus or staphylococcus, in which instances antimicrobials are mandatory. Virus pneumonia is a good example of secondary microorganisms becoming a threat that must be treated by antimicrobials. Another instance of misuse is when symbiosis might agravate a certain infection, such as moniliasis or Candida infections, where penicillin is a symbiotic to the Candida rather than an antibiotic. Fatal systemic infections have been reported from this cause. A possible misuse of antimicrobials is to give them to patients in whom nonsensitive strains are present. Sometimes it is extremly difficult to find the proper antimicrobial for a certain rare strain of virulent bacteria. Another pitfall is when there is an associated disease present such, for example, as a febrile condition in a cancerous abscess of the lung. The antimicrobial may clean up the abscess and dissipate the fever, but the cancer still remains. Another source of error is giving the wrong antimicrobial when the particular infectious process is only partially suppressed. Either the dosage of the drug is not high enough, or the selection has not been proper. The physician must press the treatment so long as any signs of infection remain. Other antimicrobials and other combinations should be tried until the right one is found.

For proper antimicrobial treatment, therefore, it is clear that there must be a knowledge of the causes of microbial diseases, and there must be facilities for finding the causes so far as current knowlege permits. Diseases vary in the manner of handling and especially with respect to the problems presented. For convenience, these diseases may be divided into several groups.

In the first group may be those rather severe ephemeral infections that are prone to pass through neighborhoods, and which the practitioner of medi-

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Delivered at the meeting of the Missouri Trudeau Society, Mount Vernon, Mo., April 27, 1956.

Chief of Research, Pathology and Allied Sciences, Missouri State Sanatorium, Mount Vernon, Mo.

cine soon learns to recognize. Ordinarily called 'flu, grippe, or virus infection, they generally are associated with a streptococcus or staphylococcus which possesses a certain amount of virulence. Many times in children, there will be only a faint flush of red on the throat, with slight enlargement of the cervical lymph nodes, and fever. Sometimes the first symptoms are gastrointestinal. Usually a single dose of penicillin or tetracycline will break this infection before it gets a systemic hold, and every physician has learned how to control the use of drugs in such situations. A severe virus pneumonia may be averted by controlling the secondary streptococci or staphylococci under which the virus may develop. By the time the laboratory examination is returned, the patient is well, and is saved several days of illness. In those conditions in which few doses of antimicrobials are given the danger of sensitization of the patient, as well as resistance of bacteria, is not serious. If there is any prolongation of the disease further work should and must be done.

A second group of cases may be considered more serious infections, which must be differentiated by the clinician, especially from the acute exanthematous diseases. In this group may be considered the streptococcus sore throat, scarlet fever, erysipelas, lobar, bronchial and Friedlander's pneumonia, diphtheria, boils, carbuncles, gonorrhoea. Any practicing physician is able to make the diagnosis in these infections without any difficulty, and he is justified in making his antimicrobial selection on the spot and starting treatment. For each one of these diseases there is usually a preference of antimicrobial, or a combination of two, that gives best results. If the physician is not familiar with the many possibilities, most drug houses will furnish dosage and drug combinations on request. At the same time, of course, the usual quarantine must be made of the quarantinable diseases, and cultures must be sent to a laboratory, or must be taken to the physician's own laboratory.

A third group of infections are those that depend almost exclusively upon the laboratory for an exact diagnosis, and yet many of them are "panic cases." In this group may be considered the various meningitides, the various salmonella infections, brucellosis, certain staphylococcus infections, Ps. aeruginosa (pyocyaneous), certain streptococcus infections such as the faecalis and the anaerobic varieties, acute syphillis, infections of the urinary tract, and many more, especially in other countries than our own. In the latter group may be considered such diseases as yaws, rickettsiae, pestis, Oroya fever. When the physician is faced with a meningitis, there is only one thing to do, and that is to start antimicrobial therapy simultaneously with withdrawal of spinal fluid. There may be a period of many hours, or one or two days, before the type of meningitis can be determined. Meningismus, poliomyelitis, lymphocytic choriomeningitis and Guillain-Barré syndrome are among the conditions that must be ruled out. But in any genuine meningitis of the epidemic, tuberculous, pneumococcic, or hemophilus type, antimicrobials must be started immediately. Any delay is dangerous. Usually a combination of one of the sulfas or penicillin, Chloromycetin, Erythromycin together with streptomycin may be given, until a more accurate bacterial diagnosis is made. In the various salmonella infections the drug of choice is Choloromycetin, but in other gram negative infections the tetracycline compounds are indicated, including the more familiar Terramycin and Aureomycin. In severe staphylococcus infections, especially if they have become hematogenous, heavy dosage of such combinations as penicillin, Erythromycin and tetracycline must be promptly and continously given until this resistant microorganism is brought under control. Much the same type of treatment is to be given for the Streptococcus faecalis and certain anaerobic streptococcus infections. The Ps. aeruginosa or pyocyaneous is best treated with polymyxin. Acute chancres of syphillis should be treated immediately by large doses of penicillin to prevent generalization. Most physicians are familiar with these various antimicrobials and with the methods used in handling the various diseases mentioned.

Outside of these three groups, there may be other cases in which the diagnosis is extremely difficult, with a vague symptom complex, and where it is reasonably certain that it is an infectious process. Many of the diseases mentioned before may masquerade under various appearances such, for example, as malaria, brucellosis. Generally, these diseases can await the laboratory returns before the administration of antimicrobials but, in doubt, a broad spectrum antimicrobial may be given.

The main theme of this message, therefore, is that physicians must become bacteria minded. In the old days when clinicians had nothing to guide them but their special senses sharp perception became a necessity, and in some instances almost uncanny perfection was developed. When time permits it is expedient to take specimens for culture wherever opportunity affords. A well trained technician will usually obtain the desired information. When there is no opportunity to make cultures, or when time does not permit, it is advisable for anyone always to take the patient to a hospital for a good work up.

Up to this point, I have considered the more acute infections in general. Nothing has been said about the therapy of chronic infections, especially tuberculosis. This is as it should be, because all specialized therapy of chronic diseases should generally be taken up after the acute or subacute conditions have been considered and mastered. In the treatment of any chronic diseases there are always acute infections that must be handled along the way, and acute infections may make their appearance at any moment, or enter into the differential diagnosis of any chronic disease.

The problem of treating chronic diseases has taken definite patterns after numerous trials and errors. This may be said of leprosy, syphilis, malaria, various mycoses, as well as tuberculosis. The differential diagnosis, especially of the mycoses and tuberculosis, has become a most intricate problem and requires great skill, especially when two diseases are associated. It brings to the front once more the necessity for a scientific approach to this aspect of medicine, where every disease, including tuberculosis, must be treated as a part of internal medicine.

In the treatment of tuberculosis there is no set schedule for handling the disease at any one time. Not only do patients vary one from the other in quantity, quality, and disease localization, but from time to time the protocols have been changed and are still changing, as new technics and methods are being explored and found good. There are certain basic regimens, however, that have become well established. I shall review the more important ones, including the development of the methods of treatment.

Nearly everyone has heard of the original work of Waxman in finding streptomycin, and the early experiments at the Mayo Clinic by Hinshaw, Feldman and associates are common knowledge. Lehmann's discovery of para-aminosalicylic acid is not as well known, but PAS today is a most useful adjunct in the use of other antimicrobials in tuberculosis.The great persistence of Domagk following up his immortal work on sulfa, in the development of Tibione, should not be overlooked. It had much influence on the development of isonicotinic hydrazide. Although the early reports were greatly exaggerated, isoniazid, as it is called, has proven to be one of the greatest of all the antimicrobials against tuberculosis. Many others have been tried out, such as Terramycin, Ammithiazone, or Pyrazinamide (PZA), Viomycin, Seromycin, and others.

After the first flush of success in the treatment of tuberculosis with streptomycin, it was soon found that all was not well. After two to four months most patients failed to progress, and some actually became worse. The cause was soon determined, by Youmans and others at the Mayo Clinic, to be due to the development of resistance on the part of the tubercle bacilli against the drug, streptomycin. More will be said about this resistance later. All other drugs were found to behave in the same way with respect to the emergence of resistance. New strains of bacteria developed that were resistant to these various drugs. After the resistance became marked, there was no further advantage gained in treatment of the patient with the drug. Donner and his associates, taking a cue from the work of Middlebrook and Karlson, administered PAS and streptomycin together, and found that the emergence of resistance was much slower than when the two drugs were given individually. Other combinations soon followed and the same general effect was achieved. It became a problem, then, to determine which combination was the best. Due to the tremendous efforts of the government services, including the Veterans Administration, Army, Navy and the U. S. Public Health Service, with their numerous protocols and thousands of treated cases, one can give the drug combination that produces the best results with the least amount of resistance on the part of the bacilli up to the present time.

Although a few short years ago streptomycin and para-aminosalicylic acid was the standby in the treatment of tuberculosis, today this combination is rarely given, unless there has been resistance developed against the other drugs. Nowadays, the combination of choice is PAS, from 9 to 12 grams a day, and INAH, from 200 to 300 mgs. a day, because with this combination resistance emerges more slowly than with any other. With streptomycin and INAH, resistance emerges rather rapidly for the INAH, and the results are no better. Some men, as Lattimer, have given the three drugs in combination, and he reports better results with the three drugs in the treatment of genito-urinary tuberculosis than with any two-drug combination. INAH is usually the drug of choice in meningitis, and in purulent or caseous type of lesions, but it must be used with another drug to control resistance. During the period of experimental study, practically every combination of drugs, size of dose, time interval and best means of controlling toxicity were explored. The matter of proper treatment became first a knowledge of the proper drug or combination of drugs with dosage and time of administration and, even more important, the ability to detect and control the development of resistance and toxicity.

It is appropriate at this time to say something about the reason for the development of resistance. Resistance is nothing unusual in the field of biology. It is part of life. No living form on this earth remains constant from one generation to the other. All life itself is continually undergoing change. With larger forms of life the changes take place slowly because of the span of years required to make the change, but to bacteria these changes take place in a few hours, and geneticists are using bacteria as a means of study of many phenomena of life. For all bacteria, it has been determined that mutations take place at a definite rate for each species against each antagonistic agent. Once in about every ten million tubercle bacilli. for example, there is a mutant that is developed that will grow in the presence of streptomycin. A mutant will grow in the presence of isoniazid appears about 500 times more frequently than it does for streptomycin, or once in every 200 thousand bacilli. Although the sensitive bacilli may be suppressed to a large extent, these mutants that are resistant to the various drugs and drug combinations develop and overgrow the population of sensitive forms until a completely resistant strain remains. Then treatment is of no avail. It is to prevent the development of these resistant strains that most of the work is directed today in the therapy of tuberculosis.

Another phenomenon regarding the treatment of tuberculosis is the problem of dormant or "resting" bacilli. The antimicrobials will only affect the bacilli that are undergoing rapid vegetation. They do not kill any of the bacteria outright, but they produce a metabolism block someplace along the line of development, until the time comes when the bacilli will perish. Ultimately, the whole chemical phenomenon may be understood but, up to this time, little is known about the mechanism of the process. Also, little is known about the resting bacilli. It is known, however, that tubercle bacilli become dormant in unfavorable surroundings, and go into a resting stage, resembling that of spores in certain bacteria. The coverings may become heavy and they may develop granules. In this stage, the drugs have little or no effect upon them. Chronic cases are prone to develop these resting forms, and that is one of the reasons why a chronic case does not respond to drug therapy as well as those cases in which the bacteria are all in full growth. Although the problem of resistant forms is not so serious as it was, the question of the resting bacilli is one that will remain a long time. There is no way, at present, of attacking the problem. Some have suggested that drug treatment be continued for two, three, or four years; others, that a course of drug treatment be repeated every few months to stop the development of these resting forms into vegetating forms.

Of course, surgery may be indicated at any time after the drugs have cleared up enough of the lung to permit surgery. Surgery and antimicrobials work together like Siamese twins, but there are still large numbers of patients for whom surgery is not indicated. Such, for example, are many complications as cancer and heart disease, and people beyond a certain age, many mental patients, and large numbers who have been badly treated or have not reached a point at which surgery may be safe.

So much for the treatment as it exists today, and the numerous pitfalls that have developed along the way. It is difficult to judge what is the absolute and correct method, but it is perfectly clear that only those most familiar with this work should be entrusted with it, as they are more likely to be right. It is generally not acceptable, for example, to give any one drug alone because resistance develops in about half the time it does when two drugs are given together. After resistance develops the drug is worthless for the patient ever after. The treatment of any patient at home, with or without antimicrobials, is also to be discouraged because it is necessary for every person having tuberculosis to go to a hospital where they are educated in their disease and the methods that are necessary to make a recovery. Any patient undergoing treatment for tuberculosis should be within the reach of an acceptable laboratory, where a reasonable control of the resistance of the various drugs may be determined. There are few hospitals that are adequately equipped for handling this problem. If there is any one criticism today that may be leveled at the average chest hospital, it is the fact that this problem of resistance is not under proper control. Good clinicians can usually determine, however, after a certain period of time, when resistance has developed, because there is no further clinical change in the patient's course. Not only does the patient's condition fail to improve under those circumstances, but the drugs themselves are practically wasted. This is not to be considered as a criticism, but it can be stated as one of the minor misuses of antimicrobials in the treatment of tuberculosis.

On the other hand, it is better to treat too long than not long enough, even at the risk of some resistance, provided severe toxicity does not develop. Drugs should be changed when resistance is present and all the secondary drugs should be used if necessary, such as PZA, Terramycin, Viomycin and perhaps Seromycin. In most advanced cases the treatment should not be stopped on any case before twelve, eighteen and even twenty four months or longer.

In conclusion, it may be summarized that the methods of treatment of infections today constitute one great unit in the practice of medicine. Success depends upon keeping abreast with the various antimicrobials as they are discovered and tried out for the various infections, and following the various recommendations made by the highest authorities.

I have given only a general outline of the problems involved in the antimicrobial treatment of acute and chronic infectious diseases with emphasis on the less well established conditions such as tuberculosis. The treatment of syphilis, malaria and animal parasites is better known and is directed usually by health departments. Just as in noninfectious diseases much of the treatment depends upon the work in biochemistry, so in infections, treatment depends much upon the proper study of the bacteriology of the respective diseases. The fundamental problem of resistance and the development of resistance, as well as the many peculiarities that may develop within the individual species of bacteria, must be always kept in mind. The progress of the patient should be closely watched, not only with respect to the disease, but also with regard to any toxicity on the part of the antimicrobials. One should recognize the fact that there is perhaps no perfect method

The Geriatric Patient

Metalex in Treatment

H. J. ERWIN, M.D., *St. Louis*

THIS IS A REPORT of the treatment of thirty-six patients, varying in age from 65 to 84 years. All of the patients exhibited signs of degenerative changes in the central nervous system, usually called senile atherosclerotic and arteriosclerotic psychosis.

There were two cases of optic atrophy with visual symptoms and two cases of cortical dysfunction due to previous head injury. The impairment of cerebral function was of such a degree as to produce changes in mood, paranoid delusions, loss of memory, confusion, depression with anxiety, apathy, vertigo, insomnia, headache and anorexia. The most troublesome symptoms, because of the necessary custodial care, were those of paranoid reactions and ideas of persecution. There were no cases of cerebral neoplasm or active inflammatory processes in the series. The symptoms, in all patients, had been present for from six months to two years.

TREATMENT

Metalex* is a combination of 50 mg. of nicotinic acid and 100 mg. of pentylenetetrazol in elixir and tablet forms. Four cc. of the elixir contains the same active ingredients as one tablet.

Each patient was given a complete thorough physical examination with particular evaluation of the cardiovascular system prior to treatment. Initially, 4 cc. of the elixir preparation was administered one hour before each meal for five days. If there was no appreciable improvement in the patient's behavior after five days, the dose was increased to 8 cc. The majority of patients reported a feeling of warmth and tingling of the skin shortly after the ingestion. This reaction did not usually occur if the drug was taken after meals. The reaction did not appear as frequently, nor was it as pronounced, when the tablet form was used.

This reaction was considered as a dermal response resulting from dilation of the deep cortical vessels and represented an increase in the blood supply to the brain. This is the effect which was desired and, therefore, the drug should be administered preferably one hour before meals.

RESULTS

The response to the treatment was measured by repeated observations and by interviews with patients and with relatives caring for patients. All results were recorded by one observer to insure consistency.

Effects of the therapy were judged by the changes of the most distressing or prominent symptoms of each patient. In most cases, there was a marked improvement five days after treatment was begun. There were a few cases, however, which did not show a great improvement until the therapy had been continued for nine days. This rapid improvement was achieved with the liquid preparation. When the maximum improvement in mental activity was reached, the patients were maintained on two tablets of Metalex three times a day.

One patient has been treated for six months and has been completely rehabilitated. The two cases which showed optic atrophy and loss of visual acuity have reported an improvement in vision. Twenty-six patients were markedly improved and only three were not benefited.

SUMMARY

Metalex, a combination of nicotinic acid and pentylenetetrazol, has been used to treat a series of thirty-six geriatric patients who showed the signs of degeneration of the central nervous system. Twenty-six patients were markedly improved and seven showed moderate improvement. Three patients showed no improvment.

Improvement of the mental faculties was brought about by the increased blood supply to the central nervous system.

11 N. Jefferson Ave.

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* Research material supplied by Storck Pharmaceuticals, St. Louis.

Use of Antimicrobials *(continued)*

known of treating any disease. All are aiming at an ideal, but few, if any, ever reach it. There are misuses of various drugs, and all at times have been guilty. As I see the medical profession today, however, there are few who indulge in serious abuses. When in doubt, one should strive to seek advice from those who are best qualified to teach. As practitioners of a great, ancient and honorable profession, one cannot go wrong in pursuing such a course.

Syphilis

Suggested Schedules of Treatment, Post-treatment Observations and Indications for Retreatment

E. A. BELDEN, M.D., *Jefferson City*

JUDGING FROM morbidity reports of primary and secondary syphilis compiled by the Missouri Division of Health, there has been a remarkable and gratifying reduction in syphilis incidence during the last ten years. A corresponding decrease in cases of latent and late syphilis, however, has not occurred. Many, if not most, of these patients continue to have a reactive syphilis serology despite therapy and the question of need for further treatment frequently arises.

TREATMENT

The recommended drugs are Procaine Penicillin G in oil with 2 per cent aluminum monostearate (PAM) and dibenzylethylenediamine dipenicillin G (Bicillin*). PAM in a dosage of 600,000 units maintains a therapeutic level from 72 to 120 hours, while Bicillin given in a single injection of 2,400,000 units maintains a therapeutic level for as long as four weeks. If a single injection recommended in the following schedules is in excess of 4 cc. in volume it is suggested that the dose be divided and given in two sites.

Primary, secondary and syphilis in pregnancy: PAM, 4,800,000 units (first injection 2,400,000; second and third injections, 1,200,000 each, given at two to four day intervals), or Bicillin, 2,400,000 units in a single injection.

Early latent, late latent and late (except neurosyphilis) and late congenital syphilis: PAM, 4,800,000 units (first injection 2,400,000; second and third injections 1,200,000 each, given at two to four day intervals).

Neurosyphilis: PAM, 10,800,000 units (900,000 daily or every other day for twelve doses).

Early congenital (less than two years): PAM, 1,500,000 units (150,000 every day for ten doses).

POST-TREATMENT OBSERVATION

The length of time required for a fall in a patient's serologic titer, and the extent of fall, generally will depend upon the duration of the infection. Patients treated during the primary or secondary stage of the disease will usually experience a gradual fall in serologic titer or a reversal to non-reactivity in six to twelve months. The serologic titers of patients with latent and late syphilis will respond more slowly, and to a lesser degree, regardless of the type and amount of treatment. The following laboratory follow-up is recommended:

Primary, secondary, early congenital, early latent and syphilis in pregnancy: Serologic tests for syphilis monthly for six months, and at nine, twelve, eighteen and twenty-four months. Cerebrospinal fluid test at one year, or earlier if there is serologic or clinical evidence of relapse or reinfection.

Late latent and late (except neurosyphilis): Serologic tests at six and twelve months, yearly thereafter for two years or more. Cerebrospinal fluid test at one year. Repeat cerebrospinal fluid tests are indicated only if the first test is positive or there is serologic or clinical evidence of reactivity.

Neurosyphilis: Serologic tests and cerebrospinal fluid tests at three, six, nine and twelve months and yearly thereafter.

INDICATIONS FOR RETREATMENT

Indications for retreatment may be based on one or more of the following: clinical evidence of relapse or reinfection, serologic relapse, and positive spinal fluid findings.

A serologic relapse is manifested by a significant fall in the serologic titer after treatment followed by a sustained rise. In interpreting changes in quantitative post-treatment serologic tests, it must be recognized that titers may vary one or two dilutions (tubes) for no apparent reason. To be significant, changes in titer must be at least twofold (two serial dilutions) and maintained for two or more consecutive tests at about fourteen day intervals.

In latent and late syphilis, maintenance of the serologic titer at or near the pretreatment level is not, in itself, indication for retreatment. However, if patients adequately treated for primary, secondary and early congenital syphilis do not show a significant fall in serologic titer within six months after treatment, retreatment should be considered.

It is no longer recommended that previously adequately treated women be routinely retreated during pregnancy. However, if there is evidence of relapse (clinical or serologic) or if post-treatment observations have been inadequate or incomplete, pregnancy is an indication for retreatment.

A positive spinal fluid, especially one showing

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* Trade names are used for identification only and do not represent an endorsement of a particular product.

Case Report

Rupture of Aortic Aneurysm

With Recurrent Hemorrhage, Simulating Upper Gastrointestinal Bleeding

JOHN W. POLK, M.D.; PER JUUL MARTINY, M.D., AND JOAO DE CASTRO, M.D., *Mount Vernon*

RUPTURE OF AN arteriosclerotic aneurysm from the abdominal aorta into the duodenum is rare. Muendel and Pilpel[1] reviewed the literature in 1954 and found fifty cases reported with rupture into into the duodenum. Roll and Caudell[2] found that fifty-six cases of rupture of an aneurysm into the gastrointestinal tract had been reported and their cases brings the total number to fifty-eight.

Antzis[3] reported that of forty-nine cases of rupture into the gastrointestinal tract, thirty-six were into the duodenum. The third portion of the duodenum is the commonest site for rupture of these aneurysms into the gastrointestinal tract.

The purpose of this report is to record an additional case of rupture of an abdominal aneurysm into the third portion of the duodenum and to present several details of the case which are felt to be unique.

CASE REPORT

The patient, a 63 year old white female, was admitted to the Missouri State Sanatorium on February 17, 1954, with a diagnosis of renal tuberculosis and possible pulmonary tuberculosis. She had had a left nephrectomy in 1940 at another institution, at which time the diagnosis of renal tuberculosis was established. Recovery was uneventful.

According to the patient, she had no further difficulty following her operation until 1952 when she began to complain of severe pain in the lower back. One year prior to admission, she began to have dysuria, frequency and hematuria. She sought medical aid and received treatment, again with no improvement of symptoms. Five weeks prior to admission she was hospitalized elsewhere with increased urinary symptoms. In addition, she stated that she had occasional upper abdominal cramping. Cystoscopy had been performed on January 22, 1954, and acid fast organisms were found in the specimen from the right ureter. X-rays of the lumbar vertebrae on January 30, 1954, revealed destructive processes involving the opposing aspects of the bodies of L-2 and L-3. Tuberculosis of the vertebrae was suspected. Chest x-ray had revealed no active pulmonary pathologic condition. With the diagnosis of active renal tuberculosis established, the patient was transferred to the Missouri State Sanatorium for further treatment.

Physical examination on admission revealed an elderly white female who showed signs of recent weight loss and dehydration. Eyes, ears, nose and throat were normal. The heart sounds were of good quality, without murmurs. The blood pressure was 170/80. The lungs presented no abnormalities. Electrocardiogram was interpreted as essentially normal by the cardiologist. The abdomen revealed minimal tenderness to pressure over the umbilicus. Definite pulsations were noted over the lower abdomen. McBurney and left flank scars were noted. Tenderness to pressure was noted over the lumbar vertebrae. The remaining portion of the physical examination was noncontributory. Urinalysis revealed a specific gravity of 1.012, occasional red blood cell and 2 plus albumen. Red blood count was 4,300,000, with 13.2 grams of hemoglobin. White blood count was 5,100 with normal distribution. Direct smears of the urine revealed no acid fast organisms.

The patient was placed on a combined regimen of isoniazid and para-aminosalicylic acid, which was continued through her hospital course.

The orthopedic consultant felt that the antituberculosis therapy, plus a Taylor back brace, would suf-

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Syphilis *(continued)*

an increase in cell count, is always an indication for intensive treatment or retreatment.

RETREATMENT

In retreating patients, it is recommended that the total dosage be doubled and given over a correspondingly longer period of time. Spinal fluid tests should always be performed before retreatment, regardless of stage of disease.

REPORTING

All cases of syphilis should be reported to the local or district health office. Morbidity reporting enables state and local health departments to estimate the extent of the local veneral disease problem. Only by reporting can the local health office provide the reporting physician with penicillin for treatment, contact investigation and post-treatment follow-up services. Morbidity reporting is necessary for program planning and provides a basic index for measuring the success or failure of veneral disease control.

Division of Health.

fice for the tuberculosis spondylitis. Drug therapy was continued for the renal tuberculosis.

On March 14, 1954, the patient suffered a severe gastrointestinal hemorrhage. She vomited approximately 750 cc. of coffee-ground material and her stools were tarry. The red blood count dropped to 2,700,000, with hemoglobin of 7.4 grams. Therapy as directed following the first bleeding appeared adequate, although the patient continued to have occult blood in the stools. A third bleeding episode occurred on May 12, 1954. Even though no ulcer had been demonstrated on x-ray, treatment had been directed toward that diagnosis.

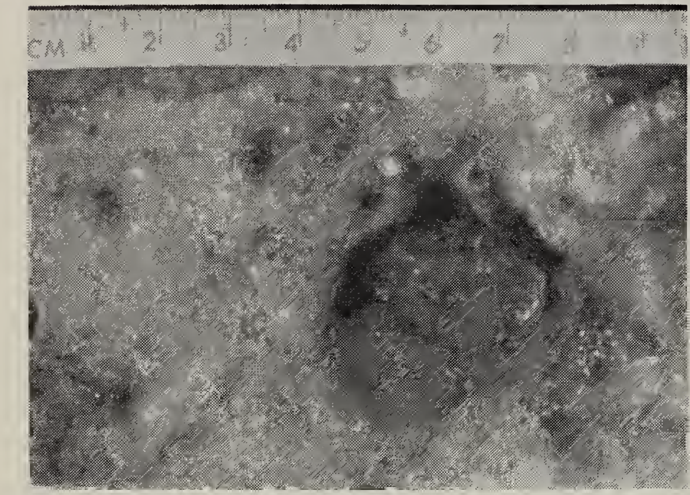

Fig 1. Shows the duodenal mucosa protruding through the rupture into the abdominal aorta.

Surgical consultation had been held after the second episode of bleeding. A tentative diagnosis of aortic aneurysm was made from the physical examination, but, because of the type of bleeding, it was felt that a bleeding peptic ulcer accounted for the hemorrhages. After each episode, the patient responded to treatment. Exploratory laparotomy was withheld because of the patient's general condition and the uncertainty of diagnosis.

On July 8, 1954, surgical consultation was again held. The patient had again suffered a massive gastrointestinal hemorrhage and was found in shock. No blood pressure and pulse were noted, and the patient did not respond. Intravenous medication with Levophed was started, followed by whole blood transfusions. She responded slowly. On July 9, 1954, the red blood count was 2,300,000. For the first time, the patient began to complain of extremely severe upper abdominal pain. Medical consultation agreed that as soon as the patient's condition improved, laparotomy should be done. At 5:00 p.m., July 10, 1954, the patient vomited a large amount of dark material and lapsed into coma. Blood pressure and pulse could not be obtained. Again, she responded to blood transfusions, serum albumin and Levophed.

At 10:00 p.m., July 10, exploratory laparotomy was performed. Immediately on opening the abdomen, a large aortic aneurysm was noted posterior to the transverse colon. At that time this was thought to be only an incidental finding. The entire gut was explored diligently and, with the exception of the third portion of the duodenum, no cause for the bleeding could be determined. The entire small bowel had a purplish appearance from old blood in the lumen. The third portion of the duodenum was exposed down to the ligament of Treitz, and the distal duodenum was noted to be densely adherent to the anterior wall of the aneurysm. By gently palpating through the anterior wall of the duodenum, a small defect in the posterior wall was found, measuring 1½ cm. in diameter. It was felt, therefore, that we were dealing with an aneurysm which had partially perforated the posterior duodenal wall, and thus caused the repeated upper gastrointestinal bleeding. Further inspection of the aneurysm revealed that it was densely adherent to the lumbar vertebrae and could not be separated. Considering these points, plus the condition of the patient, it was realized that only temporizing therapy could be achieved. A three inch incision was made through the anterior duodenal wall and the wall retracted with nylon sutures. The ulcerated bleeding point was then adequately visualized. The surfaces around the bleeding point felt firm but the first suture, which was taken to approximate the surfaces and stop the bleeding points, pulled out with profuse hemorrhage. The bleeding was then controlled by inserting the index finger of the left hand into the aneurysm hole, plugging the bleeding point. A large needle was then obtained and using #0 nylon interrupted sutures, the defect was repaired in this manner; three sutures were taken, starting on the left, utilizing duodenal mucosa, muscularis and serosa, guiding the large needle across the aneurysm with the tip of the index finger which was in the lumen and out the posterior duodenal wall on the right. The sutures were tied as the finger was removed from the aneurysm. The site was observed for ten minutes and no further bleeding occurred. The incision through the anterior wall of the duodenum had to be closed longitudinally because of the adherence of the duodenum to the aneurysm. The abdominal wall was closed in routine manner and the patient returned to the floor in good condition.

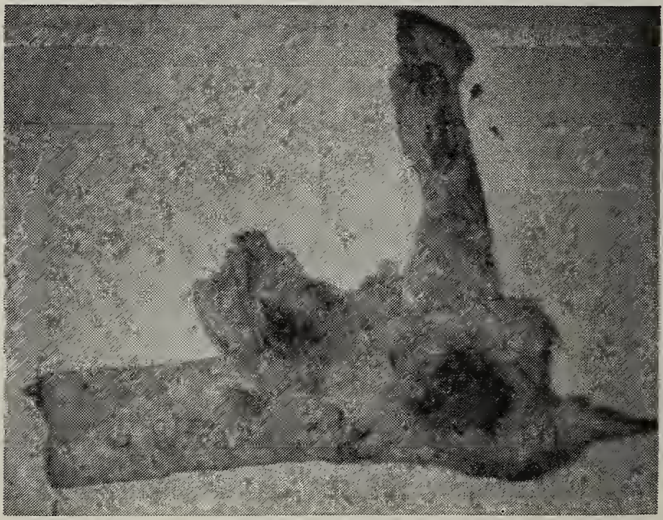

Fig. 2. Shows the relationship of the aneurysm with ulceration to the duodenum and the aorta.

Postoperatively, the patient was treated with continuous Wangensteen suction, intravenous therapy and sedation. The red blood count was 3,000,000 eighteen hours after surgery. The patient ran a daily fever of 101 to 103 F. An additional transfusion was given and the Levine tube removed at sixty hours postoperatively. On the third postoperative day, the patient again had a massive hemorrhage and expired.

AUTOPSY

The salient gross pathologic findings at autopsy were those of large saccular aneurysm proximal to the iliac bifurcation of the abdominal aorta. The aneurysm had perforated into the third portion of the duodenum. Posteriorly, the aneurysm produced a secondary erosion of the body of the second lumbar vertebra with almost complete destruction. The duodenal perforation measured 1½ cm. in diameter and the edges were rounded and smooth. This perforation was located 25.2 cm. from the pylorus and was found to be just proximal to the ligament of Treitz. The rest of the aorta presented a marked degree of atherosclerotic plaque formation with ulcerations. Histologic examination of sections of the aneurysmal sacculation showed arteriosclerotic changes with a chronic inflammatory infiltration of the attached wall of the duodenum. There was also present extensive fibrocytic reaction and histologically it was consistent with a chronic proliferative reaction. Sections of the body of the second lumbar vertebra showed replacement of the medullary tissue by fibrous elements, and also resorption of the bone trabeculae.

DISCUSSION

No mention was found in the literature available of a case in which repeated hemorrhages over a four month period have been associated with a perforated aneurysm into the third portion of the duodenum. Bagnuolo and Bennett[4] reported a case with perforation of the aorta into the esophagus and right lung, the etiology being on a tuberculous basis. Prior to surgery, we were uncertain as to the exact etiology of the hemorrhage.

Until the final autopsy findings, including cultures for the tubercle bacillus from the eroded second lumbar vertebra, it was suspected the etiology in this case was on a tuberculous basis. It was felt that the patient's condition, with only one tuberculous kidney, plus the dense inflammatory reaction and vertebral destruction, precluded definitive surgery, such as resection of the aneurysm or wrapping.

In the differential diagnosis of any case with massive upper gastrointestinal bleeding, rupture of an aneurysm from the abdominal aorta into the gastrointestinal tract should be considered. This is primarily true in the aged patient and we believe that more of this complication will be seen in the future. Treatment is preferably replacement with a homograft or prosthesis, although we felt justified in closing the perforation transduodenally in this case. The treatment must be individualized at the time of surgery, however. With the increasing number of resected abdominal aneurysm patients surviving, some of these emergency cases of rupture of an aneurysm into the duodenum should be saved in the future.

SUMMARY

A case of repeated massive gastrointestinal hemorrhages from a ruptured aortic aneurysm into the third portion of the duodenum is reported. We feel that it deserves mention in a differential diagnosis of upper gastrointestinal hemorrhage, especially if an abdominal aneurysm is suspected. This case report shows several pitfalls which may be encountered in the diagnosis and treatment of this disease.

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BOOK REVIEW

LABORATORY TESTS IN COMMON USE, by Solomon Garb, M.D., Assistant Professor of Clinical Pharmacology, Cornell University Medical College. Springer Publishing Company, Inc., New York, N. Y. 1956. Price $2.00.

This is a pocket manual about laboratory tests written primarily for nurses. In discussing each laboratory test, there is an introductory paragraph outlining the purpose of the test and giving some of the principals on which the test is based. Sometimes a little clinical information is given about the diseases in which the test is indicated. This is followed by directions to the nurse for collecting the specimen. A brief statement about the basis of laboratory method is given with the normal range of results. The book is clearly printed and has an adequate index. It is moderately priced.

As in all small handbooks, the amount of information is sometimes less than one would wish. Procedures used for collecting blood specimens are superfluous unless the hospital is one in which this is the responsibility of the Nursing Service. Description of the laboratory method is nearly always superfluous as it is too brief to be helpful to people working in the laboratory and is probably of little or no interest to nursing personnel. The main part of the book is organized according to the type of specimen to be tested, i. e., blood, urine, feces. Part II, is composed of tables that could easily have been omitted without seriously impairing the usefulness of the book. Table V, on p. 128, contains several errors. The quick reference tables seem superfluous. Part III, dealing with units of measurements, needles, syringes and venipuncture could easily have been omitted.

In summary, this small volume is a reasonably satisfactory ready source of elementary information for nurses about some of the more common laboratory tests.

J. H. H.

Special Article

Medicare: Military Dependent Medical Care

Public Law 569, the Military Dependent Medical Care act passed by the last Congress, becomes effective on December 7. That members of the Association may be more conversant with the law, the complete text of a release from the American Medical Association Washington Office dated October 19, is published. The release begins with a letter from Thomas H. Alphin, M.D., Director of the Washington Office, and information on the law follows.

The letter reads: On December 7 the Defense Department and the Department of Health, Education and Welfare will put into effect an extensive federally sponsored medical care program. It is Medicare—Military Dependent Medical Care. Nor only will military families becovered, but benefits will go to all "uniformed" service families as well—U. S. Public Health Service, Coast and Geodetic Survey and the Coast Guard. The medical profession obviously is concerned with how the program will be set up in each state and how it will be operated once it gets under way. Preparing the ground for this new program has not been a simple task. Under the law benefits are not exactly the same in military and in private facilities; outpatient care is allowed in military but not in private hospitals; there are dollar limits on some of the benefits and service limits on others; wives and children, but not parents and parents-in-law, have a right to civilian care; virtually complete care is offered in maternity cases, but only emergency and temporary care for certain types of illness. This special report is a condensation of the lengthy and necessarily detailed Joint Directive drawn up by Departments of Defense and Health, Education and Welfare for implementing the act. It is designed to supply you with some of the information you will need to understand this newest federal medical program. (For purposes this report, the designations "military," "uniformed," or "service" include U. S. Public Health Service as well as Army, Navy and Air Force.)

THOSE ELIGIBLE FOR MEDICAL CARE UNDER NEW PROGRAM

Dependents of: (a) members of the uniformed services, (b) retired members, and (c) persons who died while a member or retired member are entitled by law to medical care under the new act going into effect December 7. The uniformed services are the Army, Navy, Air Force, Marine Corps, Coast Guard, Commissioned Corps of the Coast and Geodetic Survey and Commissioned Corps of the U. S. Public Health Service. However, all dependents are not entitled to civilian care.

Care from civilian as well as military sources is authorized only for spouses and dependent children of persons on active duty (but only if duty orders are for more than 30 days). Care in Military facilities only is authorized for unremarried widow, unremarried widower and children of deceased or retired member if dependent at time of spouse's death and for parents or parents-in-law if receiving half cost of support from member at time of member's death.

Note: Furnishing of medical care to dependents not to interfere with primary mission of military facilities, and commanding officer of facility has conclusive determination as to the availability of space and capabilities of medical staff to care for dependents.

EXTENT OF MEDICAL CARE TO WHICH DEPENDENTS ARE ENTITLED

In military facilities, medical care limited to the following: Diagnosis, treatment of acute medical conditions, including acute phases of chronic diseases; surgical conditions; contagious diseases; immunization; obstetrical and infant care; other acute emergencies (temporary treatment); dental care only to relieve pain and suffering or as a necessary adjunct to medical or surgical treatment, or in U. S. where adequate civilian dental facilities are not available.

Medical care not authorized in military facilities for the following: Chronic diseases; nervous and mental disorders; elective medical and surgical treatment, such as cosmetic surgery; domiciliary care; prosthesis, except that overseas and in remote places in U. S. these items may be supplied at cost; ambulance service except in emergencies; home calls (except if determined to be medically necessary); dental care except as noted above. (Exceptions allowed in special and unusual cases).

In civilian facilities, medical care limited to the following: acute medical conditions, including acute phases of chronic diseases; surgical conditions; contagious diseases while in hospital; complete obstetrical and maternity care; 365 days' hospitalization (semi-private accommodations) for each admission, including all necessary services and supplies by hospital; pre- and post-hospitalization services of doctors for bodily injury or surg-

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This report covers the basic points of the program. Later more information will be supplied to the medical profession by the American Medical Association, State Medical Societies and the Department of Defense.

ical operation, including certain tests; acute emergencies of any nature if threat to life, health or well-being, including temporary treatment of acute emotional disorders; diagnostic tests and procedures during hospitalization.

Payment by the government also is authorized for treatment of certain bodily injuries and a limited number of tests in connection with them when there is no hospitalization. Specifically, payment is authorized for the diagnostic tests and procedures for treatment—of fractures, dislocations, lacerations and other wounds as prescribed in local schedule of allowances. In such cases when patient is not hospitalized maximum government payment authorized is $75 for laboratory tests, pathology and radiology examinations. Use of hospital outpatient facilities, such as cast room, for treatment of injury also is authorized.

Medical care not authorized in civilian facilities for chronic diseases (except acute exacerbations and complications); nervous and mental disorders; elective medical and surgical treatment; domiciliary care; treatments or procedures normally considered to be outpatient care: (Exceptions allowed in special and unusual cases).

Note: While hospitalization in civilian facilities is limited to 365 days, dependents requiring hospitalization beyond this time will be transferred to service hospitals or the government may authorize pay for their continued care in the private hospital. Payment for drugs and materials outside hospital not authorized, except those dispensed by physician to patients in his office in connection with treatment of injury.

LIMITATION ON CHOICE OF FACILITY BY DEPENDENTS

At the outset of the program, spouses and children of active duty members (the only dependents eligible for both civilian and military care) will have free choice between civilian and military. However, this limitation can be invoked later: If it is shown that use of civilian medical facilities by dependents in a certain area has affected adversely the optimum economic utilization of service facilities, the Secretary of Defense (or of HEW) may restrict dependents in that area to care in a service facility. In defining such areas, the secretary must take into consideration normal commuting time, distance and unusual geographic and transportation factors. Wherever imposed, this restriction on freedom of choice may be waived in an emergency, and under any circumstances spouses and children of active duty members will retain freedom of choice between service and private facilities if they are not living with the service person on whom they are dependent.

IDENTIFICATION OF DEPENDENTS AND THEIR ADMISSION TO BENEFITS

Dependents will be identified by a "Dependents' Authorization for Medical Care" card (DD Form 1173, one card to a family). In addition to identifying the individual dependents, it also will indicate whether they are entitled to both civilian or military care or only to military care on a "space available" basis. These cards will have to be in use no later than July 1, 1957. Until the new system is in effect, the services may continue to use existing procedures for identifying dependents.

Note: Doctors and hospitals are expected to use "reasonable care and precaution" in identifying dependents. However, when care is furnished in good faith and subsequently it is determined that the dependent is not entitled to such care at government expense, any action for recovery instituted by the government will be against the dependent or his sponsor, and not against the doctor or the hospital.

CHARGES AGAINST DEPENDENT FOR MEDICAL CARE

In military facilities, the charge against dependents will be $1.75 per day for inpatient care, including cost of subsistence. As a restraint on excessive demands for outpatient care, the Secretary of Defense, on recommendation of the secretary of a service, may set uniform minimal charges for out-patient care.

In civilian facilities, the dependent will pay the first $25 of expense incurred, or $1.75 per day, whichever total is the larger, payment to be made to the hospital. If the physician decides a private room or private-duty nursing care is required, a portion of the cost will be assessed against the dependent. In the case of treatment outside hospital for an injury, the patient is to pay the physician the first $15 of costs, with the government paying the remainder as authorized by local fee schedules.

ADMINISTRATION FROM FEDERAL LEVEL AND CONTRACT-MAKING

Secretary of Defense has jurisdiction over Army, Navy, Air Force, Marine Corps and Coast Guard when operating with Navy; Secretary of Health, Education, and Welfare has jurisdiction over Public Health Service and for medical care purposes over Coast and Geodetic Survey, and the Coast Guard when not with Navy.

In contracting for medical care, the Army is executive agent for all services in U. S., Alaska, Hawaii and Puerto Rico. The Army is now arranging contracts to cover the following: Fees to be paid for physicians and surgeons; provision for review; administrative responsibility of contractors and methods for determining administrative costs; billing arrangements for medical care costs; liaison with contractor; development of budgetary information; processing of complaints with reference to civilian medical care and hospitalization.

Contractors (representing physicians in each state) to have responsibility for resolving medical disputes through grievance committees composed of civilian physicians; and Army's responsibility does not include a detailed supervision of civilian medical procedures or a detailed inspection of civilian medical facilities. Outside continental U. S., in areas where facilities of the uniformed services cannot provide adequate care for spouses and dependent children, medical care to be provided for them "from acceptable local sources," with each service making its own arrangements.

Eligible dependents, regardless of the service affiliation of their sponsor, are to be given equal opportunity of medical care in any service hospital. Hospital commanders are to establish coordination with each other and with representatives of the local medical society and civilian hospitals "for the smooth referral of excess dependent patient loads to civilian medical facilities."

Note: The Army currently is prepared to enter into medical care agreements with the states, dealing with negotiating and fiscal contractors recommended by state medical societies. The fiscal or disbursing contractor might be the state society, Blue Shield or an insurance company.

PHYSICIANS' SERVICES; LIMITATIONS, PAYMENT OF FEES

In services related to hospitalization, fees to be based on approved local schedule of allowances, including fees of consultant's services which are to be certified as required by attending physician.

Approved local schedule of allowances for hospital treatment for bodily injury or surgical procedure to include pre-hospitalization care and normal after-care following hospitalization.

In addition: Payment is authorized for necessary diagnostic tests and procedures performed or authorized by the attending physician prior to hospitalization or for proper after-care of the same bodily injury or surgical procedure for which hospitalized but not to exceed a maximum of $75 total charges for pre-hospitalization diagnostic tests and procedures and a maximum of $50 total charges for post-hospitalization tests and procedures.

Note: The monetary limitations noted above ($75 and $50) define the government's total liability, and in no way affect fees for individual procedures contained in the local schedules of allowances. Also, mechanism is provided for payment by the government in excess of these fees in "special and extraordinary cases."

Complete maternity services include prenatal care, delivery and postnatal care in hospital, office or home, payment to be made to physician on local schedule of allowances.

Also authorized are allowances for (a) laboratory tests, pathology or radiology examinations and other procedures performed or authorized by the attending physician, (b) consultant's fee if certified as required by the attending physician, and (c) newborn infant care (including immunization) outside hospital for up to 60 days, but not to exceed two visits to or by physician following discharge.

STATEMENT BY THE PRESIDENT ON OCTOBER 15, 1956

I have today approved with great satisfaction the directive under which the Military Dependents' Medical Care program will operate beginning December 7, 1956.

Prior to this time at least 40 per cent of our service families were unable to receive adequate medical care from the Government.

This important improvement assures hospital care at all times to the wives and children of active duty personnel. It removes one of the greatest sources of worry to our servicemen and servicewomen around the world.

A significant new feature of this law authorizes the use of civilian hospitals and facilities for the immediate families of active duty servicemen.

The cost to a service family for hospitalization in any facility, civilian or military, will be limited to a payment of either $25.00 or an amount equivalent to the subsistence charge of $1.75 per day, whichever is the greater. For this charge, all hospital services and doctors' fees for the period of hospitalization are covered.

This program also continues the provision for medical care for the dependents of both active and retired personnel in military facilities on a space available basis.

I have been personally interested in this important program since its inception. I feel strongly that this important measure will have a far-reaching effect on service morale at home or on our widely flung posts, ships and bases around the world and thus effectively strengthens the defense of our country.

FOR POSITIVE DIURESIS

ROLICTON*

- oral b.i.d. dosage
- continuous control of edema

The new, highly effective oral diuretic, Rolicton, greatly simplifies the task of maintaining an edema-free state in the patient with congestive heart failure. Rolicton meets the criteria for a dependable diuretic: continuous effectiveness, oral administration and clinical safety.

In extensive clinical studies the diuretic response clearly indicates that a majority of patients can be kept edema-free with Rolicton. In these investigations it was noted that side reactions were uncommon. When they did occur they were usually mild.

In most edematous patients Rolicton may be employed as the sole diuretic agent. When used adjunctively in severe cases, Rolicton is also valuable in eliminating the "peaks and valleys" associated with the parenteral administration of mercurial diuretics.

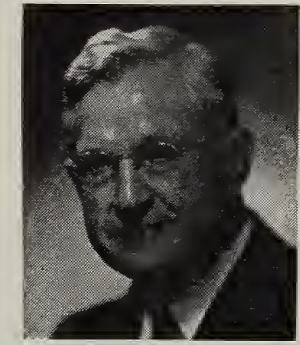
One tablet of Rolicton b.i.d., after meals, is usually adequate for maintenance therapy after the first day's dosage of four tablets. Some patients respond well to one tablet daily. G. D. Searle & Co., Chicago 80, Illinois. Research in the Service of Medicine.

*Trademark of G. D. Searle & Co.

SEARLE

President's Page

The October issue of *The Journal of the American Medical Association* contains two interesting articles about the Veterans Administration and its medical care program.



Dr. George F. Lull, Secretary of the A.M.A., writes a thought provoking article, "Let's Keep the Door Open." Dr. Lull stressed the fact that the A.M.A. supports the Veterans Administration program of medical care for veterans with service connected disabilities, which is a definite national obligation to veterans who are ill or disabled as a result of their military service. The A.M.A. policy does not involve wartime veterans with nonservice connected tuberculosis or neuropsychiatric disorders, whenever local facilities are available.

A.M.A. policy, however, as Dr. Lull points out, is that general medical and surgical conditions that have no relation to military service should become the responsibility of the individual veteran and his community, instead of the federal government.

The other article, "To Socialized Medicine and Socialism by Way of the Veterans Administration," was written by Dr. Louis M. Orr, Orlando, Florida, Vice Speaker, A.M.A. House of Delegates. This article explains the vast increase in the number of veterans with nonservice connected disabilities who are receiving medical care in Veterans Administration facilities.

Members are urged to read these articles.

M.D.

EDITORIALS

Instruction Courses to Be Annual Session Feature

Instruction courses will be featured at the 99th Annual Session of the Missouri State Medical Association, the first time the program of the Association has included didactic presentations. The session will be held March 31, April 1, 2 and 3, in the Kansas City Municipal Auditorium, with the annual banquet at the Muehlebach Hotel.

The Tuesday morning program will open with five forty-five minute courses. These will be followed by five more running for forty-five minutes, until the morning intermission. The subjects which will be covered are "The Electrocardiogram," "The Menopausal Patient," "Office Proctology," "The Neurologic Examination," "Jaundice," "Management of Hypertension," "Obstetric Emergencies," "Treatment of Common Foot Conditions," "The Patient with a Painful Back," and "Fluid and Electrolyte Balance."

The instruction courses will consist of presentations on these subjects, question and answer periods and discussion from the group. Each course will be restricted to an attendance of twenty and there will be prior registration for the courses.

It has been the attempt of each Committee on Scientific and Postgraduate Work to present to the membership the most practical and valuable program possible. It is the purpose of the scientific portion of the Annual Session to instruct, review or bring new facilities to the practitioner of medicine in Missouri. It is felt that the instruction courses are one of the best ways to bring to the members the things it is felt the membership desires.

The formal presentations arranged for the remainder of the program include well known physicians in fields that are of vital concern to the doctor today, including economics as well as scientific.

New High in Voluntary Health Insurance Coverage Reported

The number of people in Missouri who are covered by voluntary health insurance reached a new high by September 30, the Health Insurance Council reported recently. As of that date the Council estimated that 3,000,000 persons were protected by some form of insurance designed to help pay hospital and doctor bills.

This figure, the Council said, is part of the continued growth of health insurance throughout the country, which was revealed last August in its tenth annual survey of the extent of voluntary health insurance coverage for 1955. The number of people covered by some form of health insurance in the nation today stands at the 110 million mark.

In releasing the findings of its survey, which is based on reports of insurance programs of insurance companies, Blue Cross-Blue Shield and other health care plans, the Council went on to say there were 2,938,000 persons covered by hospital expense insurance in Missouri as of December 31, 1955. This represents a gain of 281,000 persons for a rate of increase of 10.6 per cent over the 1954 total of 2,657,000 persons.

Surgical expense insurance, which helps to defray the cost of physicians' charges for operations, rose to 2,481,000, as compared with 2,323,000 the year before, a gain of 158,000 persons for a rate of growth of 6.8 per cent.

The number of people protected by regular medical expense insurance, providing doctor visits for non-surgical care, during 1955 rose to 1,652,000 as against the previous year's figure of 1,498,000, reflecting an increase of 154,000 persons covered for a percentage increase of 10.03.

The Health Insurance Council, which is a federation of eight insurance associations representing 90 per cent of the accident and health insurance business, stated that this growth reflects the desire of the people of Missouri to help protect themselves against the cost of accident and illness.

Longevity Reaches Three Score and Ten

A historic milestone was reached in 1955, according to the Metropolitan Life Insurance Company, when the expectation of life at birth among American wage earners and their families, as represented by industrial policy holders of the company, rose to a new high, which is 70.0 years. This was a .2 rise from 1954 and was the twelfth consecutive year in which an increase in life expectancy occurred.

The increase in life expectancy has risen five years since 1945, ten years since 1935 and twenty-four years since 1909. In the period from 1879 to 1894, the earliest period for which data are available in this experience, the average was only 34 years, less than half that for 1955.

Each of the color-sex groups among the insured has shared in the gains of recent years, but not in equal measure. In 1955, the expectation of life at age 5 was 70.1 years for white females and 63.9 years for white males.

Missouri Medical Meetings

Missouri State Medical Association Annual Session, Kansas City, March 31, April 1, 2, 3, 1957.

St. Louis Pediatric Society—second Thursday of each month, September through May at Medart's Restaurant, 8:00 p.m.

Component Society Meeting Dates

Audrain County Medical Society—third Monday of each month.

Barton-Dade County Medical Society—third Wednesday of each month.

Benton County Medical Society—meets only on call.

Boone County Medical Society—first Tuesday of each month.

Buchanan County Medical Societey—first Wednesday of each month.

Butler-Ripley-Wayne County Medical Society—first Wednesday of each month.

Callaway County Medical Society—third Thursday of each month.

Cape Girardeau County Medical Society—first Monday of each month.

Chariton-Macon-Monroe-Randolph County Medical Society—second Thursday of each month September through May.

Clay County Medical Society—last Tuesday of each month.

Clinton County Medical Society—meets only on call.

Cole County Medical Society—third Tuesday of each month.

Cooper County Medical Society—first Monday after the 15th of each month.

Dallas-Hickory-Polk County Medical Society—first Wednesday of each month.

Dunklin County Medical Society—third Tuesday of each month.

Franklin-Gasconade-Warren County Medical Society—last Tuesday of each month at the St. Francis Hospital, Washington, at 12:30 p.m.

Grand River Medical Society (Caldwell-Carroll-Livingston, Grundy-Daviess, Harrison, Linn, Mercer, DeKalb)—second Thursday of each month.

Greene County Medical Society—fourth Friday of each month.

Henry County Medical Society—meets only on call.

Holt County Medical Society—meets only on call.

Howard County Medical Society—meets only on call.

Jackson County Medical Society—fourth Tuesday of each month execpt June, July and August, at auditorium of General Hospital No. 1.

Jasper County Medical Society—second Tuesday of each month, September through May.

Jefferson County Medical Society—meets only on call.

Johnson County Medical Society—meets only on call.

Lafayette-Ray County Medical Society—second Tuesday of each month at 7:30 p.m., at the Victory Cafe, Lexington.

Lewis-Clark Scotland County Medical Society—meets only on call.

Lincoln-St. Charles County Medical Society—third Thursday of each month.

Marion-Ralls-Shelby County Medical Society—fourth Tuesday of each month. 7:30 p.m.

Mid-Missouri County Medical Society (Phelps-Crawford-Dent-Pulaski-Maries-Laclede)—fourth Thursday of each month.

Miller County Medical Society—meets only on call.

Mineral Area County Medical Society (St. Francois-Iron-Madison-Washington-Reynolds-Ste. Genevieve)—fourth Thursday of each month.

Moniteau County Medical Society—second Thursday of each month.

Nodaway-Atchison-Gentry-Worth County Medical Society—first Monday in February, April, October and December.

North Central Counties Medical Society (Adair-Schuyler-Knox-Sullivan-Putnam)—meets only on call.

Ozarks Medical Society (Barry-Lawrence-Stone-Christian-Taney-Newton-McDonald)—second Tuesday of each month September through June.

Pemiscot County Medical Society—third Thursday of each month.

Perry County Medical Society—second Thursday of each month.

Pettis County Medical Society—third Monday each month September through May.

Pike County Medical Society—third Tuesday of each month.

Platte County Medical Society—meets only on call.

St. Louis County Medical Society—second and fourth Wednesday of each month.

St. Louis Medical Society—first, third and fifth Tuesday of each month October through May.

Semo County Medical Society (Stoddard, New Madrid, Mississippi, Scott)—third Wednesday of each month September through May.

South Central Counties Medical Society (Howell-Oregon-Texas-Wright-Douglas-Ozark)—fourth Wednesday of each month.

Webster County Medical Society—meets only on call.

West Central Missouri Society (Bates-Cass-St. Clair-Vernon-Cedar)—second Thursday of each month.

Musings of the Field Secretary

On Thursday night, October 11, from 8:00 to 10:00 p.m., Dr. and Mrs. Roscoe L. Pullen, and Dr. and Mrs. Frank B. Engley, Jr., held an informal reception at the new M. U. Medical Center for all members of the faculty and staff of the University of Missouri Medical Center and their husbands and wives. Dr. Pullen is Dean and Dr. Engley is Assistant Dean of M. U. Medical School.

Following the formal program, a receiving line greeted the guests.

The building was inspected and groups gathered to visit.

From 8:00 to 9:00 p.m., a program of entertainment was held in the auditorium on the first floor of the Medical Center. At 9:00 p.m., activities were transferred

Dr. John S. DeTar was the banquet speaker and had an attentive audience.

to the cafeteria. The period from 9:00 to 10:00 p.m. was consumed in greeting the receiving line, which included among others, President and Mrs. Ellis and former President and Mrs. Middlebush, partaking of refreshments and much visiting.

Senior medical students were present and helpful to see that no one got lost in this beautiful, expansive new Medical Center.

The 8th Annual Meeting of the Missouri Academy of General Practice, held at the Governor Hotel in Jefferson City, October 24 and 25, registered more than 200 people of which 135 were doctors. This represents the largest attendance of all the Academy's Annual Sessions to date.

One hundred and sixty people attended the Annual Banquet at which the featured speaker was John S. DeTar, M.D., Milan, Michigan. Dr. DeTar is the dynamic President of the American Academy of General Practice.

A revised list of medical practice locations in Missouri is now on hand in the State Medical Association Office. Copies of this list are given to physicians seeking locations. Please advise any such physician to contact the office for a copy of the list. Four senior medical students at the University of Missouri have completed a six weeks preceptee training period with general practitioners in outstate Missouri. The preceptors were: Kenneth Glover, M.D., Mount Vernon; P. V. Siegel, M.D., Smithton; J. H. Trolinger, M.D., Jackson, and Doyle C. McCraw, M.D., Bolivar. At the present time, one preceptee is in training with Wyeth Hamlin, M.D., Palmyra.

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News

The Central Neuropsychiatric Association, meeting in Omaha October 4 to 6, installed **G. Wilse Robinson**, M.D., Jr., Kansas City, as president.

The Fifth District Missouri State Nurses' Association, meeting in Joplin in September, were addressed by **E. H. Hamilton**, M.D., Joplin, on "Infectious Hepatitis."

The Cole County Heart Council, at an organization meeting in September, named **Earl Loyd**, M.D., Jefferson City, as vice president.

At the closing session of the American Roentgen Ray Society, held in Los Angeles, September 24 to 28, **Wendell G. Scott**, M.D., St. Louis, was elected president-elect.

The American Rhinologic Society, meeting in Chicago, October 13, presented the Golden Head Mirror Honor Award of the society to **Joseph H. Ogura**, M.D., St. Louis, "for meritorious sharing in the service of rhinology."

The National Office Managers Association, Joplin chapter, had as their speaker at the opening meeting this fall, **G. A. Schulte**, M.D., Joplin who spoke on "Taking a Physical Inventory of Ourselves."

The Livingston County Health Council had as a recent speaker **Donald M. Dowell**, M.D., Chillicothe, who spoke on "Advantages of a Health Unit."

The annual Ralls County Cancer meeting on September 28, held at New London, was addressed by **A. M. Evans**, M.D., Columbia. He spoke on "Research in Cancer."

Officers of Whiteman Air Force Base and their wives heard a talk by **A. L. Walter**, M.D., Sedalia, on his recent trip through Russia. The talk was illustrated with colored slides.

A recorded talk on "Growing Old Gracefully" by **Robert M. Schauffler**, M.D., Kansas City, was presented by **G. A. Aiken**, M.D., Marshall, before a recent meeting of the Marshall Rotary Club.

The Ray County Hospital medical staff recently elected **E. E. Gay**, M.D., president; **M. C. Johnson**, M.D., vice chief of staff, and **Thomas Cook**, M.D., secretary and treasurer.

The Pre-School Parent Teacher Association of Mexico had as dinner speaker recently **Kathryn C. Epple**, M.D., Mexico. She spoke on "Preparing the Child Emotionally and Physically for School."

The Ezra Council No. 32, R. & S. M., Jefferson City, honored **R. P. Dorris**, M.D., with a dinner at the Masonic Temple on October 10.

New assistant deputy director for Medical Health Services of the Kansas City Civil Defense Department is **William W. Gist**, M.D., Kansas City.

"Medical Effects of Atomic Weapons" was the subject of a talk presented by **Carroll P. Hungate**, M.D., Kansas City, at a meeting of the Shawnee County Medical Society in Topeka, Kansas, on October 1.

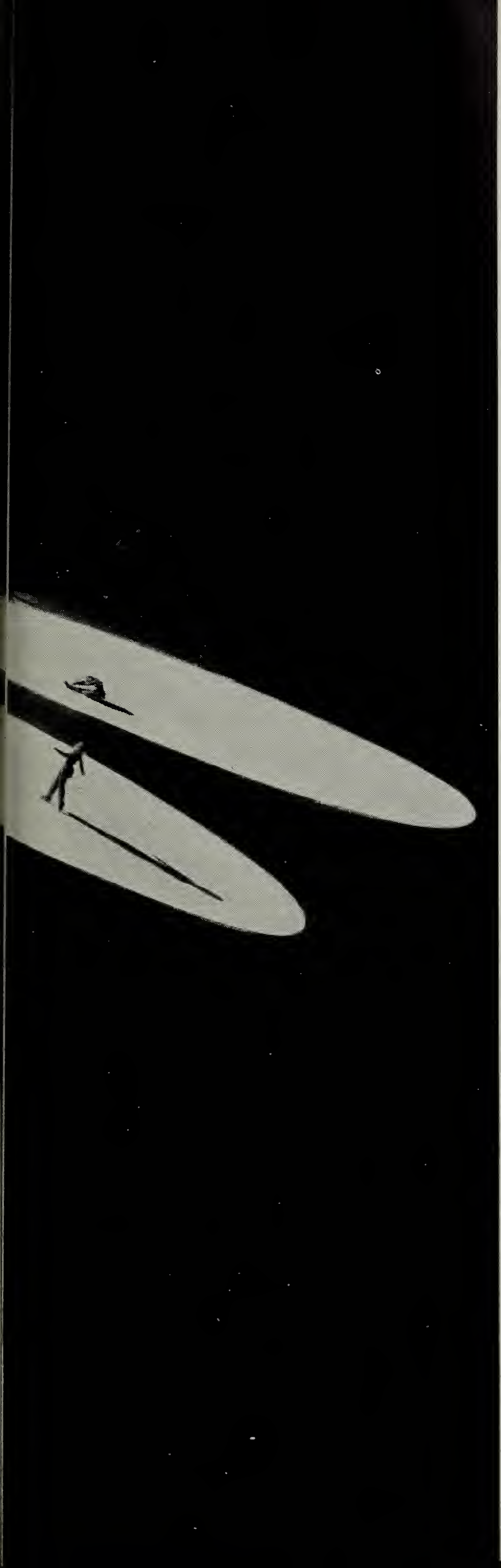
The Hale Parent Teachers Association on October 18 were addressed by **Donald M. Dowell**, M.D., Chillicothe, who spoke on the need of Carroll County for a new hospital.

A conference on arrangements for the National Industrial Health Conference to be held in St. Louis next April was held the latter part of October with **Richard A. Sutter**, M.D., St. Louis, as deputy general chairman, and **William L. Macon**, M.D., St. Louis, as conference chairman.

The two high school students winning top AMA awards at the National Science Fair next spring will be invited to be guest exhibitors at the AMA Annual Session in New York June 3 to 7. **Alphonse McMahon**, M.D., St. Louis, will serve as chairman of the AMA judging committee at the Fair in Los Angeles May 9 to 11.

The Saline County Health Council, meeting on October 11 at Marshall, was addressed by **Henry V. Guhleman**, M.D., Jefferson City.

Members of the Missouri State Medical Association who delivered papers at the Southern Medical Association meeting in Washington, D. C., November 12 to 15, were: **Ralph Hale**, M.D., Kansas City; **Oral B. Crawford**, M.D., and **Hal E. Freeman**, M.D., Springfield; **Jacob Kulowski**, M.D., St. Joseph; **J. C. Redington, Jr.**, M.D., **William A. Knight, Jr.**, M.D., **Edmund A. Smolik**, M.D., **Francis P. Nash**, M.D., **James W. Clawson**, M.D., **Lee T. Ford**, M.D., **Wayne A. Simril**, M.D., **Earl P. Holt, Jr.**, M.D., **Louis T. Byard**, M.D., **Grayson Carroll**, M.D., and **Robert V. Brennan**, M.D., St. Louis. Taking part in other portions of the meeting were the following who discussed papers or appeared on panels: **Hjalmar E. Carlson**, M.D., Kansas City; **John E. Burch**, M.D., Joplin; **Eugene M. Bricker**, M.D., **Francis J. Burns**, M.D., **Theodore Sanders**, M.D., and **Robert W. Bartlett**, M.D., St. Louis. Presenting exhibits were: **Joseph C. Edwards**, M.D., St. Louis; **Garrett Pipkin**, M.D., and **Donald K. Piper**, M.D., Kansas City; **Jacob Kulowski**, M.D., St. Joseph; **Oral B. Crawford**, M.D., Springfield; and **Robert E. Ryan**, M.D., St. Louis.



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References:
1. Finland, M., *et al.*: *J.A.M.A.* 154:561 (Feb. 13) 1954.
2. Prigot, A. and Marmell, M. *Antibiotics and Chemotherapy* 4:1117 (Oct.) 1954.
3. Trafton, H. and Lind, H.: *idem* 4:697 (June) 1954.
4. English, A., *et al.*: *idem* 4:441 (April) 1954.

Councilor District News

FIRST COUNCILOR DISTRICT

DONALD M. DOWELL, CHILLICOTHE, COUNCILOR

Grand River Medical Society

The Grand River Medical Society met October 11 at the Strand Hotel, Chillicothe. After the social hour, about fifty sat down to the dinner. Following dinner, the guests were introduced: Mrs. Charles T. Shepherd, President of the Woman's Auxiliary, Mrs. Martyn Schattyn, Editor of the *Auxiliary Bulletin,* drug company representatives and other guests. The Woman's Auxiliary then retired to their meeting.

A dinner preceded the formal program.

The scientific program was presented by Dr. Robert W. Forsythe, Neurosurgeon, Kansas City, who discussed "Head Injuries and Their Management." This was an excellent paper well presented and followed by questions and discussion.

The transfer card of Dr. Billy Dale Howell, Brookfield, and the applicants for membership of Dr. M. S. Liggett, Marceline, and Dr. Keith Knopf, Brookfield, were presented with favorable report of the Board of Censors. They were elected to membership by unanimous vote.

Members and guests visited while awaiting the talk.

The President, Dr. John R. Dixon, vacated the chair to Dr. A. S. Bristow, who advised the Society of the recent death of one of our members, Dr. Joseph M. Quisito. Dr. Bristow mentioned that on the day of Dr. Quisito's sudden death, he had worked with him at the Wright Memorial Hospital and was shocked later in the day to learn of his death. The Society then stood with bowed heads in memory of Dr. Quisito. It was resolved that the Secretary write a letter to Mrs. Quisito and son Ralph extending condolence and sympathy.

The audience was attentive.

It was reported that the projector was ordered and would arrive soon.

The minutes of the last meeting were read and approved.

There being no further business, the Society adjourned.

E. A. Duffy, M.D., *Secretary*

SECOND COUNCILOR DISTRICT

W. F. FRANCKA, HANNIBAL, COUNCILOR

Chariton-Macon-Monroe-Randolph County Medical Society

Dr. Albert E. Upsher, Kansas City, spoke before a dinner meeting of the Chariton-Macon-Monroe-Randolph County Medical Society at the Woodland Hospital on Thursday night, October 11. He gave an interesting and informative talk on "Do's and Don't's in the Laboratories."

A good attendance of Society members was present to enjoy this valuable program.

Robert H. Young, M.D., *Secretary*

FIFTH COUNCILOR DISTRICT

BYRON M. STUART, BOONVILLE, COUNCILOR

Audrain County Medical Society

The Audrain County Medical Society held a joint dinner meeting with the Callaway and Montgomery County Medical Societies, Monday night, October 15, in the Pilot Lounge of the Air Park Motel in Mexico.

The meeting was called to order by the president, Dr. Glen Kallenbach. The minutes and Treasurer's report of the previous meeting were read and approved.

It was moved by Dr. Ed Wallace that the Society cooperate with the Missouri Heart Association in their county program. Motion was seconded by Dr. Leonard Davis and carried.

It was agreed that all doctors would offer to make free urine examinations during Diabetes Detection Week, November 11 to 17, 1956.

Dr. Glen Kallenbach introduced the guest speaker, C. Read Boles, M.D., Washington University, St. Louis, who discussed "Troublesome Pediatric Problems."

The following doctors were present: Drs. Leonard L. Davis, Kathryn C. Epple, Lawrence K. Epple, J. Frank Jolley, Benjamin N. Jolly, William H. Jolly, Harold K. Lankford, Glen P. Kallenbach, Henry J. Ector, Ed S. Wallace, Tom Brewer, James E. Hill, C. Read Boles.

As there was no further business, the meeting adjourned at 11:00 p.m.

Ed S. Wallace, M.D., *Secretary*

Callaway County Medical Society

On October 18 at 7:30 p.m., the Callaway County Medical Society held its regular monthly meeting at the Clinic Building, State Hospital No. 1, Fulton.

The meeting was called to order by the President, Dr. Frank Nichols.

Members present were: Drs. Frank Nichols, Tom Brewer, James Hill, Katherine S. Brown, J. J. Brown and R. N. Crews. Visitors present were: Drs. Harold Freund, Charles Dixon, Thomas McCarthy and Jerald Anderson.

The minutes of the September 20 meeting were read and approved.

A letter was read from Mrs. Blanche Hanks in which she expressed her appreciation for the many kind gestures from this Society at the time of the death of Dr. Ralf Hanks.

A letter from Mr. Raymond McIntyre, Field Secretary of the Missouri State Medical Association, was read, giving information on the present schedule of membership dues in the State Association. It was freely discussed.

The application for membership of Dr. Tom Johnson into this Society, having been approved by the Membership Committee, was presented, and he was elected a member of this Society.

It was moved by Dr. Brown and seconded by Dr. Hill that dues paid to the Society by new members applying after October 1 each year be applied to the dues for the succeeding year. Motion carried.

In the afternoon of September 30, a picnic was held on the lawn at the home of Dr. and Mrs. A. K. Baur. It was well attended by members of the Society and their families. Guests present were: Dr. and Mrs. H. G. Freund and family, Fulton; Dr. and Mrs. R. U. Robertson, Fulton; Dr. C. H. Dixon, Fulton; Dr. and Mrs. Fred Handler and family, Jefferson City; Dr. and Mrs. H. O. Loyd, Jefferson City; Dr. and Mrs. Carroll Crews and family, Fulton; Mr. and Mrs. Reed Holt; Mrs. Elizabeth Dalton of Tucson, Arizona; Dr. Tom Johnson, Fulton. The occasion was enjoyed by all present.

Dr. Hill reported having attended a meeting of the Audrain County Medical Society on October 15, at which time Dr. Read Boles from St. Louis gave an excellent talk on Pediatrics. Dr. Hill stated that it

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had been suggested that the Audrain, Callaway and Montgomery County Medical Societies have joint meetings each month, alternating the meeting places monthly. No action was taken on this suggestion.

A color film entitled, "Post Anesthesia Recovery Rooms," furnished by E. R. Squibbs & Sons, was presented. It was interesting and informative and was appreciated by those present.

R. N. Crews, M.D., *Secretary*

SIXTH COUNCILOR DISTRICT

C. G. STAUFFACHER, SEDALIA, COUNCILOR

West Central Missouri Medical Society

A dinner meeting of the West Central Missouri Medical Society and its Woman's Auxiliary was held at the Suburban Inn, Belton, Thursday night, October 11.

Festivities began with a social hour followed by a steak dinner and then an excellent presentation by Dr. Graham Asher, cardiologist, Kansas City.

Dr. Asher discussed "The Basis for Drug Selection in the Treatment of Cardiac Patients." This was a practical talk and well received by all of those in attendance.

L. P. McCann, M.D., *Secretary*

EIGHTH COUNCILOR DISTRICT

B. E. DETAR, JOPLIN, COUNCILOR

Greene County Medical Society

Dr. Harlin English, Danville, Illinois, member of the Council on Medical Education and Hospitals of the American Medical Association, gave the principal address at the Greene County Medical Society meeting, Friday, September 28, at the Kentwood Arms Hotel, Springfield.

Dr. English was the speaker.

He spoke on the subject "Medical Fees." During his discussion, he outlined, briefly, his fundamental ideas on setting fees for medical and surgical services. He said that there is no substitute for a frank discussion of "fees" between doctor and patient, and that if more of these discussions were carried on, there would probably be much less criticism regarding doctors' charges. He briefly discussed some of the efforts being made by various medical societies over the country to establish average fee schedules in a particular county or area.

About eighty physicians attended the meeting.

Some eighty doctors were in attendance at this, the first fall medical society meeting.

Festivities began with a social hour, followed by dinner, the discussion by Dr. English and then a number of reports from committees.

G. Bruce Lemmon, Jr., M.D., *Secretary*

Committee reports were given following the talk.

Jasper County Medical Society

Dr. William A. Sodeman, Professor of Medicine and Chairman of the Department of Medicine at the University of Missouri School of Medicine, Columbia, spoke at a dinner meeting of the Jasper County Medical Society, October 9, at the Twin Hills Golf and Country Club in Joplin.

Dr. Sodeman's subject was "Cortical Steroids."

Dr. Harry K. Wieman is program chairman of the Society and was instrumental in bringing Dr. Sodeman for this meeting.

A social hour at 6:30 p.m. preceded the dinner and then Dr. Sodeman was introduced by Dr. M. H. Black, Joplin.

L. S. Crispell, M.D., *Secretary*

NINTH COUNCILOR DISTRICT

J. H. SUMMERS, LEBANON, COUNCILOR

Mid-Missouri Medical Society

A joint dinner meeting of the Mid-Missouri Medical Society and the Fort Leonard Wood Clinical Society was held in the Officers Club, Station Hospital, Fort Leonard Wood, Missouri, Thursday night, September 27.

The Society met in the Officers Club at Fort Leonard Wood.

The festivities began with a social hour followed by dinner and then the scientific program.

The scheduled speaker for the evening was Falls Hershey, M.D., chief of surgery, Cochran Veterans Hospital, St. Louis, who spoke on "Arteriograms in the Diagnosis of Peripheral Vascular Lesions."

Dr. Hershey has had experience in establishing and operating one of the largest Vascular Graft Banks in the United States, and his discussion was quite interesting and informative.

Dr. Falls Hershey was the speaker of the evening.

Seventy-five persons including doctors, their wives, nurses and other invited guests attended this session.

M. K. UNDERWOOD, M.D., *Secretary*

South Central Counties Medical Society

The South Central Counties Medical Society met at the Arcade Hotel in West Plains for dinner, Wednesday

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night, October 24, with the following members and visitors present: Dr. and Mrs. R. H. Smith, Dr. and Mrs. C. F. Callihan, Dr. and Mrs. M. L. Fowler. Dr. and Mrs. J. N. Wiles and Mrs. Thelma Bohrer, West Plains; Dr. A. C. Ames, Dr. S. W. Connor and Dr. and Mrs. R. W. Denney, Mountain Grove; Dr. and Mrs. C. W. Cooper, Thayer; Dr. and Mrs. D. E. Tiffany, Mountain View; Dr. H. W. Miller and Dr. L. E. Walker, Willow Springs; Dr. A. T. Walker, Mammoth Spring, Arkansas; Dr. and Mrs. C. W. Gaskins, Popular Bluff Veterans Hospital, and Dr. and Mrs. Tarr, Houston.

After dinner, the ladies went home with Mrs. Smith for the evening, and Dr. Wiles, the President, called the meeting to order and introduced the speaker, Dr. Gaskins, who spoke on a new operation they have been doing at the VA Hospital for patients with herniated disks in the spine. They have operated on several patients with apparent benefit, but not yet enough to establish the operation as worthy to be generally recommended. He also mentioned some other cases that were rather puzzling.

ROTARY CLUB

Dr. Gaskins spoke following a dinner for physicians and their wives.

The minutes of the last meeting were read and approved, and the case of Dr. Deborah Doan of Bakersfield was brought up. She has been a faithful member for more than forty years and is somewhat incapacitated, though not entirely out of practice, and it was voted to make her an honor member.

Dr. Wiles expressed to Dr. Gaskins the thanks and appreciation of our Society, and the meeting was adjourned to meet in Houston, the last week in November.

A. C. Ames, M.D., *Secretary*

TENTH COUNCILOR DISTRICT

BEN M. BULL, IRONTON, COUNCILOR

The 3rd Annual Southeast Missouri Cancer Conference was held in Cape Girardeau on October 4. As a one day session, sponsored by the Cape Girardeau County Medical Society, the Missouri Division of Health, the Missouri Academy of General Practice and the Missouri Division of the American Cancer Society.

The local arrangements committee for the meeting included Dr. T. A. Lovinggood, chairman, Dr. L. R. Seabaugh, Dr. Milton Shoss, Dr. Charles E. Sutton, Cape Girardeau, and Dr. Wilson J. Ferguson, Sikeston.

The speakers were Dr. David Dahlin and Dr. Joseph Pratt, Mayo Clinic, Rochester, Minn.; Dr. Everett D. Sugarbaker, Jefferson City, and Dr. G. S. Lodwick, University of Missouri School of Medicine, Columbia.

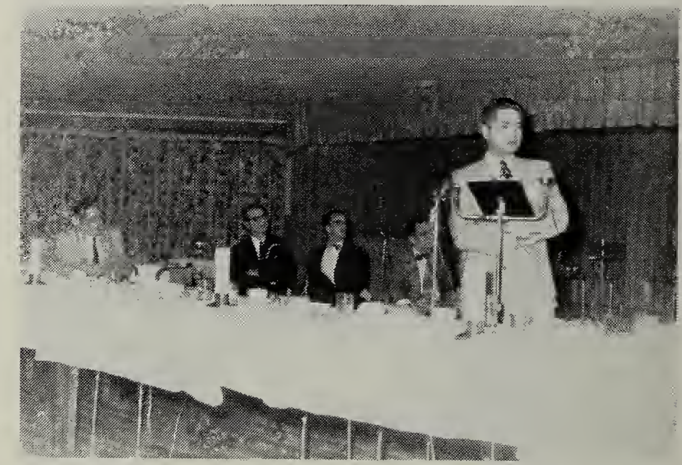
The conference was attended by approximately a hundred physicians.

Approximately one hundred doctors from southeast Missouri and neighboring states were in attendance.

The afternoon session consisted of a Tumor Seminar with guest speaker participating.

The evening program began with a social hour, dinner and then papers given by each of the afternoon speakers. The evening festivities were all held at the Purple Crackle, just over the river in Illinois.

Jo R. Cochran, M.D., *Secretary*



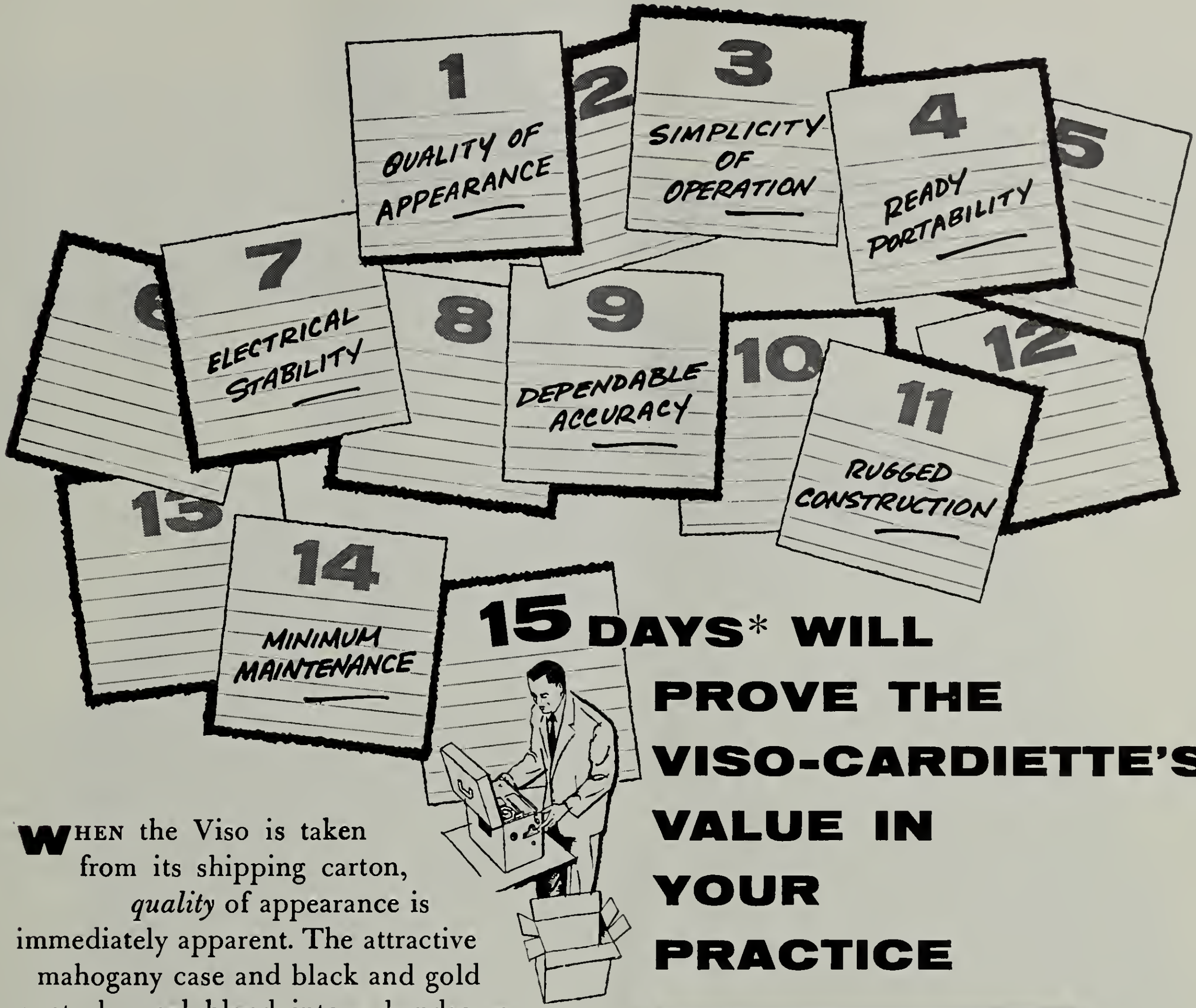
A panel discussed various phases of cancer.

Butler-Ripley-Wayne County Medical Society

The Butler-Ripley-Wayne County Medical Society held a dinner meeting at the Dunn Hotel in Popular Bluff on Friday night, September 21.

The scientific program of the evening was given by Dr. William D. Snively, Jr., Evansville, Indiana. Dr. Snively has done considerable research on fluid balance and electrolytes and is co-author of a medical book on "Fluid Balance."

Marvin R. Barbour, M.D., *Secretary*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From the Medical Schools

UNIVERSITY OF MISSOURI

Trips and Talks

On September 28, 1956, Dean Roscoe L. Pullen spoke to the Life Underwriters Insurance Association on "Developments of the University of Missouri Medical Center," at the Harris Cafe in Columbia.

Dr. James C. Cope and Dr. Glenn L. McElroy, both clinical associates on the medical faculty of the University of Missouri were inducted into the American College of Surgeons at the meeting in San Francisco, October 8 to 12.

On October 12, 1956, Dr. W. R. Hepner, associate professor of pediatrics at the University of Missouri Medical School spoke at the 25th Anniversary Celebration of the Bob Roberts Memorial Children's Hospital of the University of Chicago. The subject of his talk was "Retrolental Fibroplasia and the Central Nervous System." Approximately 200 persons were in attendance at the meeting.

Dr. Hugh E. Stephenson, Jr., associate professor and chairman of the Department of Surgery attended the American College of Surgeons meeting in San Francisco during the week of October 8. On October 15 he was a guest of the Surgery Department of the St. Louis Jewish Hospital at their dedication ceremonies in St. Louis.

Dr. Frank B. Engley, Jr., professor and chairman of the Department of Microbiology, attended a meeting of the Eastern Missouri Branch of the Society of American Bacteriologists in St. Louis on September 25, 1956.

Dr. Jacob S. Roden, assistant professor and chairman of the Department of Obstetrics and Gynecology, and Dr. Clarence D. Davis, professor of obstetrics and gynecology, participated in a meeting of the Kansas City Gynecological Society for the afternoon and evening sessions on September 27, 1956. After the afternoon session, Drs. Roden and Davis took part in a general discussion of Maternal Mortality reports, and in the evening attended the session on "Afibrinogenemia." These meetings were attended by some eighty members of the Society.

On October 3 to October 7, Dr. Clarence D. Davis attended a meeting of the Central Association of Obstetricians and Gynecologists in New Orleans, Louisiana. At this meeting Dr. Davis was inducted into the Association, where he also served as a discussant of a paper by Dr. Paul Hodgkinson. The meeting was attended by approximately 100 members of the Association.

Dr. Robert L. Jackson, professor and chairman of the Department of Pediatrics, presented two lectures on August 14, 1956, to the staff of the Butterworth Hospital in Grand Rapids, Michigan. Approximately thirty-five were in attendance for the lectures entitled: "Infant and Child Feeding" and "Juvenile Diabetes." On September 25, 1956, Dr. Jackson addressed the Missouri Association for Social Welfare in Paris, Missouri. The meeting was attended by 200 regular members and guests of the Association. The subject Dr. Jackson chose for his address was "Opening Doors for Handicapped Children."

At a dinner meeting of the Henry, Johnson, Pettis, Saline, Lafayette-Ray, and adjacent county medical societies on September 19, 1956, at Arrow Rock Tavern, Arrow Rock, Missouri, Dr. W. A. Sodeman, professor and chairman of the Department of Medicine, presented a report on "Fever of Undetermined Origin." On October 9, 1956, Dr. Sodeman visited with the Jasper County Medical Society where he spoke on the subject "Cortical Steroids."

The Third Annual Southeast Missouri Cancer Conference was held on October 4, 1956, at Southeast Missouri State College. The Conference was sponsored by the Cape Girardeau County Medical Society in cooperation with the American Cancer Society (Missouri Division), Missouri State Medical Association and the Missouri Academy of General Practice. Dr. Gwilym S. Lodwick, professor and chairman of the Department of Radiology was one of the speakers for the evening sessions. He spoke on "Radiation in the Palliative Treatment of Advanced Carcinoma."

Gifts and Grants

The Department of Health, Education and Welfare, U. S. Public Health Service has awarded the amount of $3,456.00 to the University of Missouri School of Medicine for the period January 1, 1957, to December 31, 1957, for a Medical Student Part-time Research Fellowship Program to be under the direction of Dean R. L. Pullen.

Dr. C. S. Anast, assistant professor of pediatrics, has been awarded a grant in the amount of $5,728.00 from the Department of Health, Education and Welfare, U. S. Public Health Service for the purpose of research dealing with magnesium equilibria between extracellular water and the inorganic phase of bone. The period covered by this grant is July 1, 1956, to August 31, 1957.

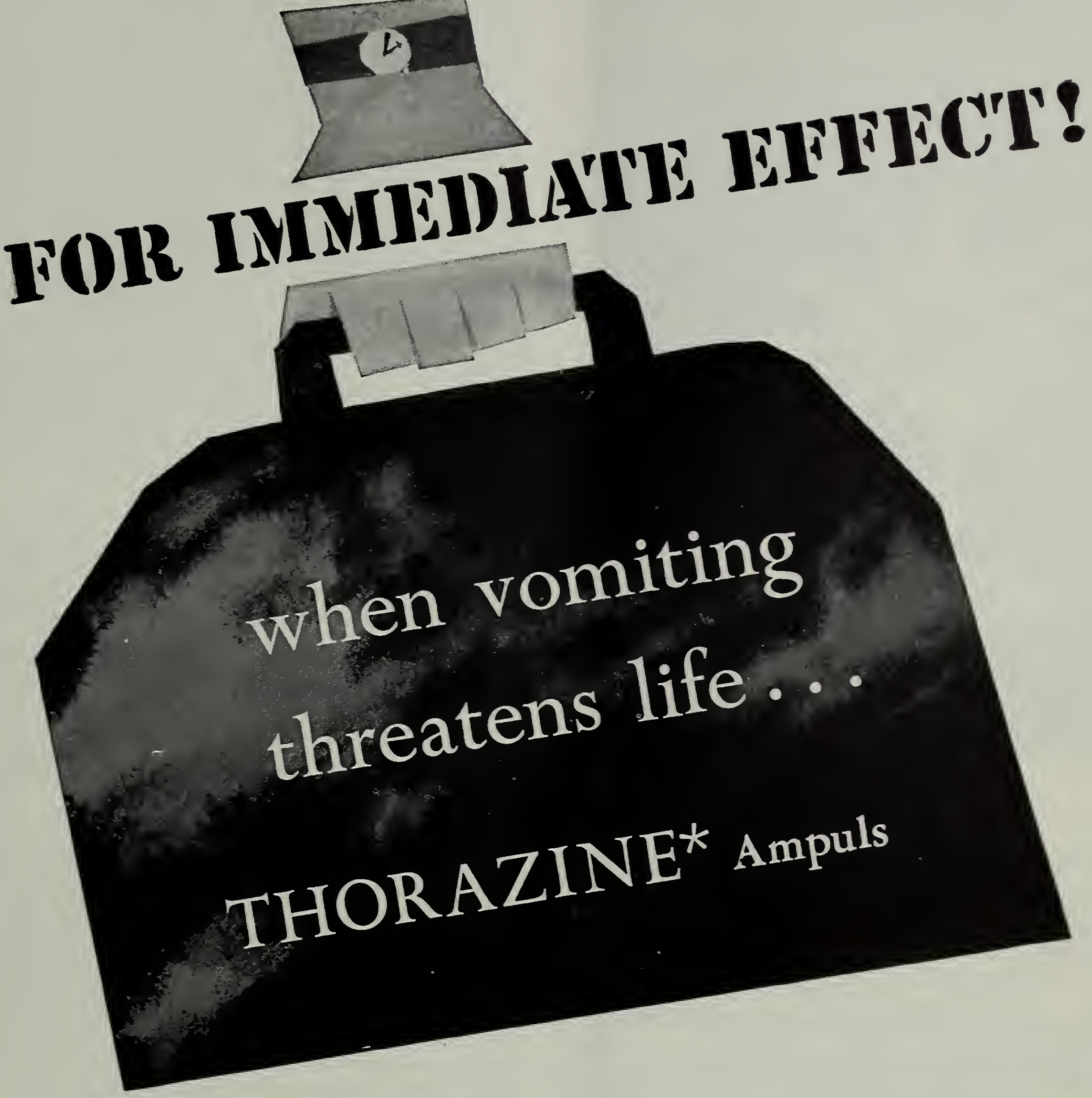
An undergraduate training grant in heart disease has been renewed and awarded by the Department of Health, Education and Welfare, U. S. Public Health Service, to Dr. W. A. Sodeman, professor and chairman of the Department of Medicine. The grant, in the amount of $4,167.00 will cover the period July 1, 1956, to August 31, 1957.

Dr. J. E. Randall, assistant professor of physiology and pharmacology, has been awarded a grant of $7,532.00 by the U. S. Public Health Service to cover the period September 1, 1956, to August 31, 1957. The study will deal with the stochastic properties of a vascular system.

A grant dealing with glycogen fractions of the anoxic heart, in the amount of $7,453.00 has been renewed by the U. S. Health Public Health Service for the period of September 1, 1956, to August 31, 1957. The grant has been awarded to Dr. B. A. Westfall, professor and chairman of the Department of Physiology and Pharmacology, and Drs. D. K. Meyer and W. S. Platner, both professors of physiology and pharmacology.

New Appointments

Dr. Arnold A. White has been appointed assistant professor in the Department of Biochemistry and will join the staff of the University of Missouri School of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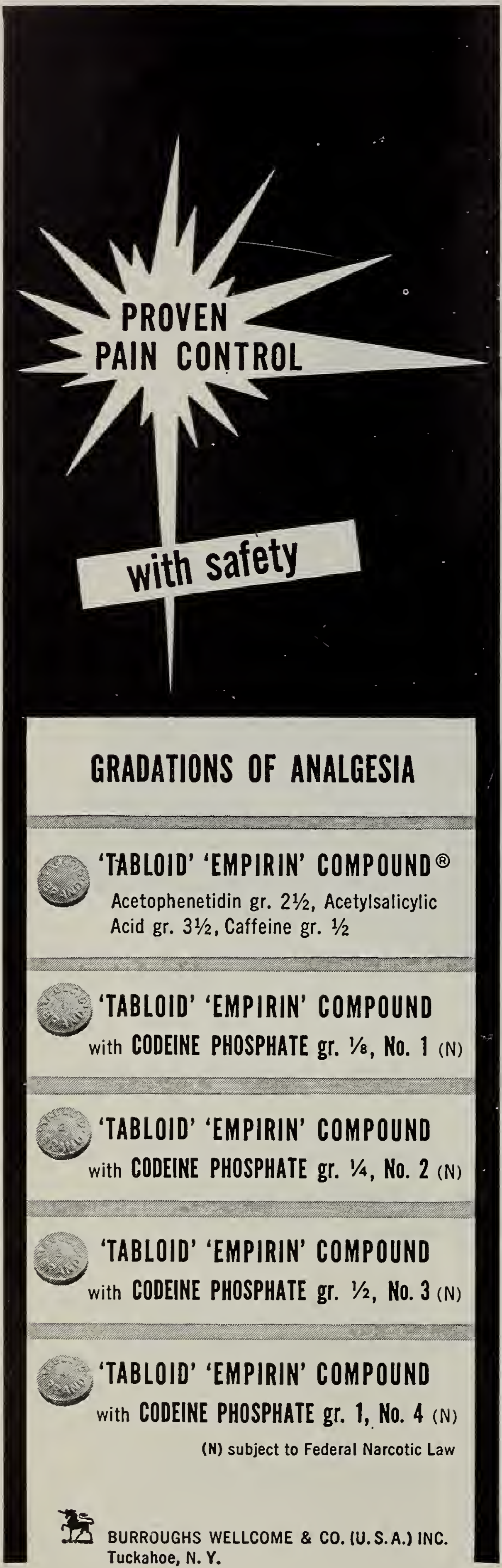

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Medicine January 1, 1957. Dr. White is presently on the staff at Georgetown University, Washington, D. C., in the Department of Biological Chemistry.

Miss Lucille S. Spalding has been appointed associate professor in the School of Nursing and will join the staff of the School of Nursing on December 1, 1956. Miss Spalding formerly was on the staff of the School of Nursing, University of North Carolina, Chapel Hill, North Carolina, where she served as professor of nursing and as director of the graduate curriculum in nursing. Prior to joining the faculty at the University of North Carolina, Miss Spalding was chief nurse of Washington University in St. Louis, and also served as assistant professor in the School of Nursing. During World War II, Miss Spalding served in the Army Nurses Corps at the General Hospital in St. Louis.

Dr. John T. Logue, assistant professor in the Department of Medicine, resigned on October 31, 1956, to go into private practice in Columbia. He will, however, remain on the staff as clinical associate.

Miscellaneous

An informal reception given by Dr. and Mrs. R. L. Pullen and Dr. and Mrs. F. B. Engley, Jr., was held at 8:00 p.m. October 11, 1956, in the auditorium of the new University of Missouri Medical Center. Invited guests consisted of the faculty of the School of Medicine and their wives, hospital heads and their wives, and senior medical students and their wives. A most entertaining program was presented by faculty members, followed by a tour of the Medical Center and refreshments in the new dining room of the hospital.

Postgraduate Activities

On November 8 the first session of the Postgraduate Activities at the University of Missouri Medical Center will take place. Dr. Hugh E. Stephenson, Jr., associate professor and chairman of the Department of Surgery and Dr. Gwilym S. Lodwick, professor and chairman of the Department of Radiology will conduct a panel discussion on "Roentgen Evaluation of Gastrointestinal Bleeding," from 3:00 to 4:00 p.m. From 4:00 to 5:00 p.m. there will be a Correlative Clinic which will consist of a case presentation of an interesting patient under observation at the University of Missouri Medical Center by one of the clinical departments in the School of Medicine. The schedule of subsequent meetings which will be held approximately every two weeks appeared in the October issue of Missouri Medicine.

WASHINGTON UNIVERSITY

Appointments, Elections

Dr. Edward W. Dempsey, professor and head of the department of anatomy at Washington University School of Medicine, has been named assistant to the dean of the school of medicine, Dean Oliver H. Lowry announced recently. The appointment, which was effective immediately, is a new one at the medical school. In his new post Dr. Dempsey shares many of the administrative duties of the medical school with Dean Lowry. He also retains his position in the department of anatomy.

Six faculty members were inducted as fellows of the American College of Surgeons at a recent meeting in San Francisco. New fellows include: Dr. Leonard T.

Furlow, associate professor of clinical neurological surgery; Dr. Earl P. Holt, Jr., assistant in clinical orthopedic surgery; Dr. Robert B. King, assistant professor of neurosurgery; Dr. Lawrence W. O'Neal, assistant in clinical surgery; Dr. Sam Schneider, assistant in clinical surgery; and Dr. Theodore E. Walsh, professor and head of the department of otolaryngology.

Dr. Louis T. Byars recently was elected vice president of the American Society of Plastic and Reconstructive Surgery at the organization's 25th annual meeting at Miami Beach, Fla. Dr. Byars is associate professor of clinical surgery at the medical school.

Dr. Eugene M. Bricker, associate professor of clinical surgery, and Dr. Robert M. Smith, instructor in clinical medicine, have been elected president and vice president, respectively, of the Doctors' Medical Foundation. Elected to the board of governors of the foundation were Drs. John L. Horner and Sim F. Beam, both instructors in clinical medicine at the medical school.

Honors

Dr. French K. Hansel, associate professor of clinical otolaryngology at Washington University School of Medicine, was made an honorary member of the American Rhinologic Society at the organization's second annual meeting held recently in Chicago. At the meeting Dr. Joseph H. Ogura, associate professor of otolaryngology, received the Golden Head Mirror honor award for his "meritorious sharing in the service of rhinology."

Nine medical students received awards for excellence in academic work during the last school year. These awards were presented at a meeting of the Washington University Medical Society held October 24. The students and the awards they received were: Edward H. Forgotson, the Alumni Scholarship Award; Richard D. Aach and Jerome L. Silverman, Nu Sigma Nu awards as the outstanding freshman and sophomore student, respectively; Gordon R. Miller, the George F. Gill prize in anatomy; Bryce L. Munger, the Roche Award for outstanding performance for the first two years of medical school; Robert B. Winter, the Howard A. McCordock Book Prize for pathology; Lewis J. Thomas, Jr., the Alexander Berg Prize in bacteriology; Morris Reichlin, the biochemistry prize; and Donald R. Harkness, the biochemistry prize for 1954-55 which was not awarded last year.

Meetings

Four research papers by faculty members were given at the October 24 meeting of the Washington University Medical Society, along with the presentation of undergraduate awards. The participants and their papers were: Dr. Richard J. Bing, professor of medicine and chief of the Washington University medical service at Veterans Hospital, "Dynamic and Metabolic Alterations in Myocardial Anoxia"; Dr. Morton D. Pareira, assistant professor of surgery and director of the division of surgery of the Jewish Hospital, "Some Observations on Survival of the Undernourished Organism Following Trauma," prepared in collaboration with Dr. Stanley Lang, instructor in physiology and physiologist with the Surgical Research Laboratories of the Jewish Hospital. Others were: Dr. Neal S. Bricker, assistant professor of medicine and of preventive medicine, "Observations on the Functional Capacity of the Transplanted (Denervated) Kidney in Man and Dog," from the department of medicine, Peter Bent Brigham Hospital

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and the Harvard Medical School, in collaboration with Drs. Ralph Straffon, Warren R. Guild, John Reardan and John P. Merrill; and Dr. Thomas B. Ferguson, instructor in thoracic surgery, "Surgery of the Open Heart." This paper was prepared by Dr. Ferguson, Dr. Thomas H. Burford, professor of thoracic surgery; Dr. Bernard A. Bercu, assistant professor of medicine, and Dr. David Goldring, associate professor of pediatrics.

A conference on myelin, sponsored by the National Multiple Sclerosis Society, was held at Washington University School of Medicine October 13. Dr. Edward W. Dempsey, professor and head of the department of anatomy, was chairman of the all day meeting. Other participants from the medical school were: Dr. Sarah A. Luse, assistant professor of pathology, who discussed "The Morphology of Myelin and Its Relation to Glial and Sheath Cells"; and Dr. Oliver H. Lowry, professor and head of the department of pharmacology and dean. Dr. Lowry spoke on the "Chemistry of Myelin."

Three faculty members of the medical school participated in the annual meeting of the St. Louis Heart Association. They were: Dr. David Goldring, associate professor of pediatrics; Dr. John R. Smith, associate professor of medicine, and Dr. Arthur E. Strauss, assistant professor emeritus of clinical medicine. Dr. Goldring discussed heart disease prevention; Dr. Smith spoke on "Heart Research Today"; and Dr. Strauss presided.

Staff members from the departments of ophthalmology and otolaryngology attended the meeting of the American Academy of Ophthalmology and Otolaryngology held the week of October 15, in Chicago. Those from the department of ophthalmology who attended included: Drs. Bernard Becker, Paul A. Cibis, Charles R. Barnes, Albert P. Ley, James Miller, Margaret Yamasaki and William A. Moor. Otolaryngology department members at the meeting were: Drs. Theodore E. Walsh, James B. Costen, Joseph H. Ogura, William T. K. Bryan, Robert E. Votaw, Joseph W. West, Walter P. Covell, Catherine Smith and Marian P. Bryan.

Dr. Joseph C. Edwards, instructor in clinical medicine, participated in a panel and had an exhibit on the treatment of hypertension at a recent meeting of the Mississippi Valley Medical Society in Chicago. He also showed the exhibit at meetings of the American Heart Association in Cincinnati and the Southern Medical Society in Washington, D. C.

Resignation

Dr. Charles L. Eckert, associate professor of surgery and director of the division of tumor services, has resigned effective next January 1 to become professor and chairman of the department of surgery at Albany Medical College of Union University, Albany, N. Y. He also will be surgeon-in-chief at Albany Hospital. Dr. Eckert received an M.D. degree from Washington University in 1939 and has been on the faculty since that time. He was appointed to his present position in 1953. He also has been assistant surgeon at Barnes and St. Louis Children's hospitals since 1944 and attending surgeon at St. Louis City Hospital since 1946. In addition to his executive and teaching duties in his new post Dr. Eckert will continue his research on the hormonal interrelationships in regard to their effect on breast cancer.

SAINT LOUIS UNIVERSITY

Postgraduate Course

Ninety General Practitioners from the St. Louis area attended a six weeks' postgraduate course at the St. Louis University School of Medicine October 2 to Nov. 13. The refresher course was presented by the St. Louis Academy of General Practice through the facilities of the School. Twenty-six faculty members lectured before the group in sessions held at the School of Medicine, Firmin Desloge Hospital and Cardinal Glennon Memorial Hospital. Each lecturer was chosen because of his knowledge of a specific subject.

Participants and their topics were: Dr. James W. Colbert, Jr., Dean, "Differential Diagnosis and Treatment of Jaundice"; Dr. C. Rollins Hanlon, director of the department of surgery, "Differential Diagnosis of Acute Surgical Abdomen"; Dr. William F. Melick, assistant professor of clinical urology, "Diagnosis and Treatment of Genito-Urinary Infections"; Dr. H. E. Oppenheimer, assistant professor of clinical medicine, "Modern Concepts and Treatment of Diabetes"; Dr. James P. King, director of the department of pediatrics, "Management of the Premature Infant"; Dr. G. O. Broun, director of the department of internal medicine, "Anemias, Classification and Treatment"; Dr. Robert Potashnick, assistant professor of clinical medicine, "Coronary Artery Disease"; Dr. Eugene G. Hamilton, assistant professor of clinical gynecology and obstetrics, "Indications for Cesarian Section"; Dr. J. Eugene Lewis, assistant professor of surgery, "Surgical Problems in the Newborn"; Dr. Jack Zuckner, senior instructor in internal medicine, "Diagnosis and Management of Arthritis"; Dr. Joseph A. Hardy, director of the department of gynecology, "Management of Bleeding in Pregnancy"; Dr. Paul Murphy, associate professor of clinical medicine, "Modern Treatment of Tuberculosis"; Dr. Charles R. Doyle, assistant professor of clinical surgery, "Diagnosis and Management of Thrombophlebitis"; Dr. Joseph V. Finnegan, associate professor of clinical medicine, "Pitfalls and Errors in Use of Modern Drugs"; Dr. William A. Knight, Jr., associate professor of internal medicine, "Diagnosis, Prognosis and Treatment of Ileitis and Diverticulitis"; Dr. Joseph M. Krebs, assistant professor of gynecology and obstetrics, "Office Diagnosis and Management of Vaginal Discharges"; Dr. Walter Moore, assistant professor of clinical neurology and psychiatry, "Identification and Treatment of Psychoses"; Dr. Thomas Mier, assistant professor of clinical gynecology and obstetrics, "New Treatment in Pre-Eclampsia and Eclampsia"; Dr. Donald W. Bussman, senior instructor in internal medicine, "Ausculatory Findings in Rheumatic Heart Disease"; Dr. Donald Burst, instructor in orthopedic surgery, "Intra-Articular Infections"; Dr. John P. Pfaff, senior instructor in pathology, "Demonstration of RH Test"; Dr. Carl Dreyer, senior instructor in gynecology and obstetrics, "Manikin Forceps Demonstration"; Dr. Robert Funsch, senior instructor in orthopedic surgery, "Intra-Articular Injections"; Dr. Hubert Ritter, instructor in gynecology and obstetrics, "Manikin Forceps Demonstration"; Dr. Robert O'Brien, professor of clinical orthopedic surgery and chairman of the department, "Diagnosis and Treatment of Bursitis, Tenosynovitis and Myositis," and Dr. James G. Janney, associate professor of clinical medicine and director of division of cardiology, "Hypertension."

Lectures

Dr. Mark M. Ravitch, associate professor of surgery, The Johns Hopkins University and Director of the Department of Surgery, Baltimore City Hospitals, Baltimore, Maryland, delivered the eleventh annual John Auer Lecture sponsored by the Phi Beta Pi Medical Fraternity of the Saint Louis University School of Medicine on October 15. Dr. Ravitch spoke on "Abdominal Enlargement in Children." The John Auer Lecture was established in 1944 in recognition of Dr. John Auer's outstanding contribution to pharmacology as a research worker and a teacher in his speciality. Dr. Auer was a professor of pharmacology and director of the department at the School of Medicine for twenty-seven years until his death in 1948.

Two scientists were guests of the Microbiology Department headed by Dr. R. Walter Schlesinger during the month of October. Dr. Hans Lautrop, visiting fellow at Rockefeller Foundation, permanently on the staff at Statens Seruminstitut, Copenhagen, Denmark, conducted a seminar on "Bacteriological, Epidemiological and Clinical Aspects of Parapertussis" attended by the microbiology and pediatrics departments Oct. 19. The following week, Dr. Royston Clowes, of the Department of Genetics, Carnegie Institute of Washington and Wright-Fleming Institute, London, took part in a microbiology seminar titled "Transductions of Biochemical Markers in Salmonella."

Dr. David Flavan, assistant professor of clinical medicine, was installed as president of the St. Louis Heart Association Oct. 23 during the annual meeting of the Association. Participants in the scientific program included Dr. O. P. J. Falk, assistant professor of clinical medicine, who spoke on common sense health habits of daily living in preventing heart attacks.

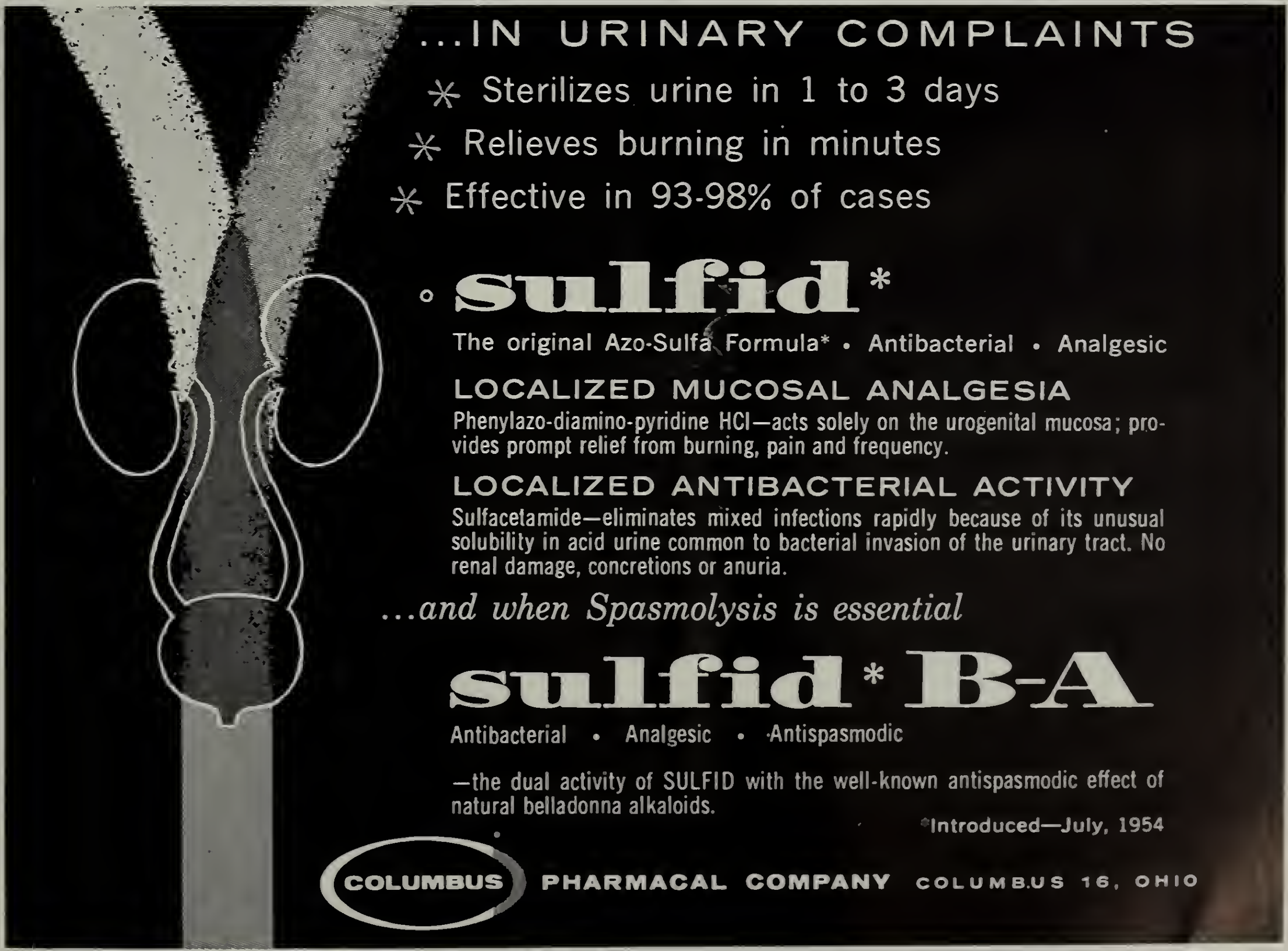
Dr. Melvin Rubenstein, instructor in neurology and psychiatry, spoke on "The Psychodynamics of a Disturbed Child" before the Fourth Annual Institute of Religion and Psychiatry held under the auspices of the Men's Club Oct. 5. Dr. Philip A. Katzman, professor of biochemistry, was cochairman of the workshop, while Dr. Thomas Thale, assistant clinical professor and Executive Secretary of Section on Psychiatry, was discussant.

Grants

The United States Public Health Service awarded two new grants to the School of Medicine which became effective Sept. 1. Dr. R. Walter Schlesinger, director of the department of microbiology, was awarded a $29,913.00 research grant for a project titled "Latent Virus Infections of Human Tissue." Dr. Ralph A. Kinsella, Jr., associate professor of internal medicine, was awarded a $14,000.00 research grant for a project titled "Analysis of Urinary 17-Ketosteroids."

Alpha Omega Alpha

Eleven medical school seniors have been elected to membership in the Alpha Omega Alpha Honorary Medical Society, it has been announced by Dr. Albert Kuntz, director of the department of anatomy, and secretary of Alpha Omega Alpha. They are: Benjamin Broghammer, Peter J. Citrone, Richard K. Danis, Louis J. Goetz, John J. Lang, Dean A. Miller, Paul T. Moran, Joseph A. Moriarty, Charles L. Olson, John G. Suelzer and Charles B. Wolf. Each year a select number of each junior and senior class is approved for candidacy by the officers of the school and elections are made by the active members of the chapter. Initiation ceremonies are held in the spring following the annual Alphonse M. Schwitalla lectureship.



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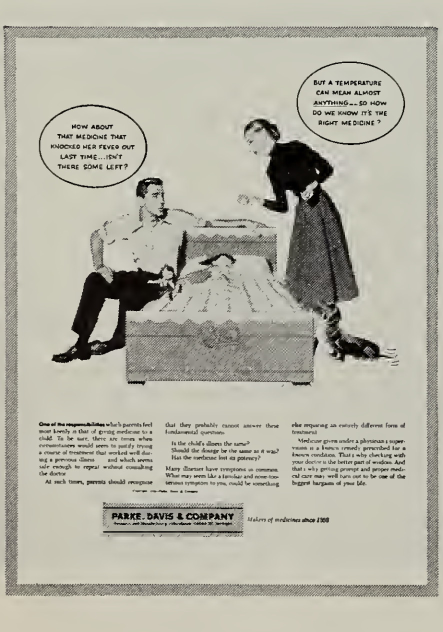

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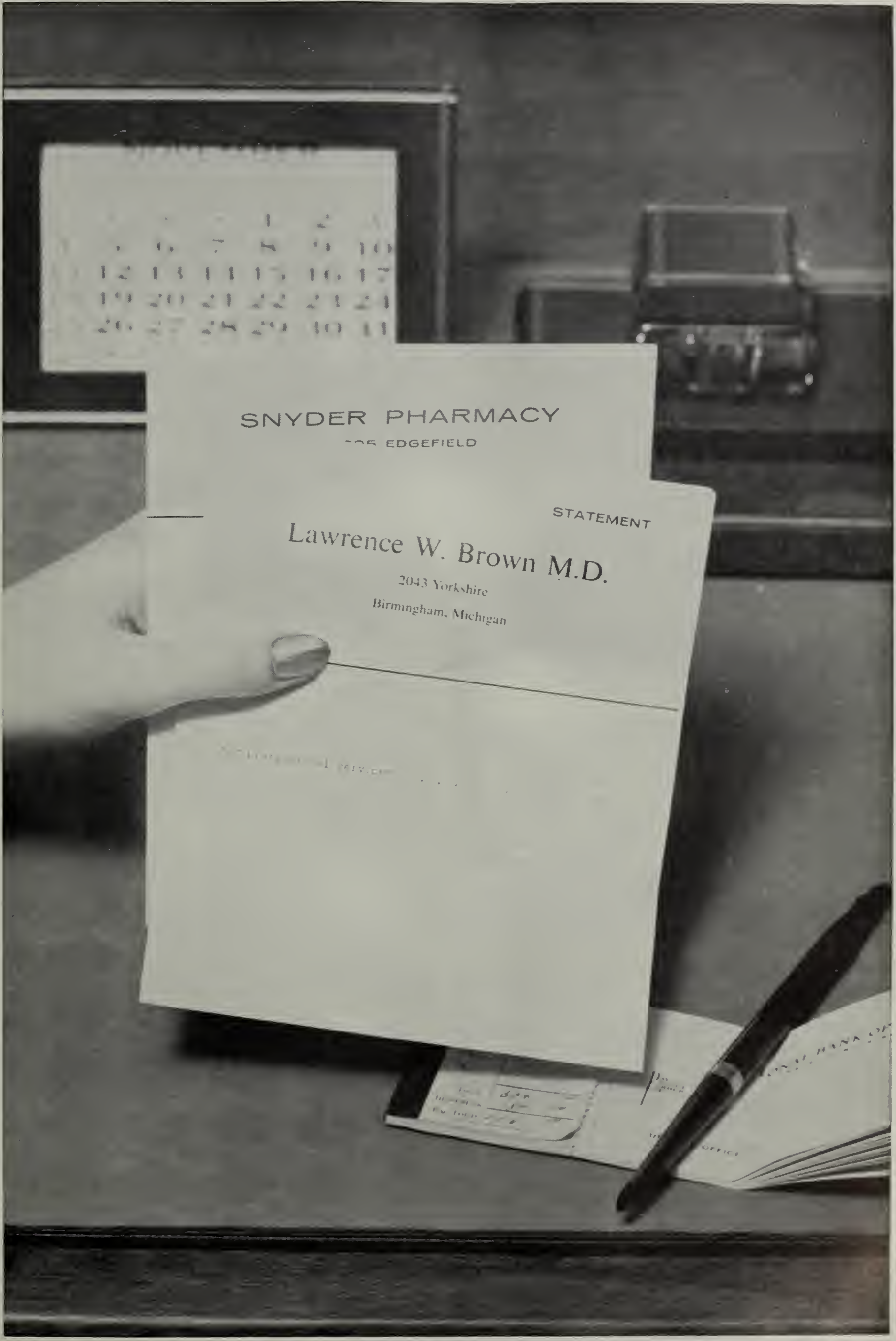
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University of Missouri Requests Appropriation

President Elmer Ellis announced recently that the University of Missouri has asked the State to appropriate $7,227,315 to operate the new Medical Center during the biennium 1957-59.

In addition, he said, the Board of Curators has requested $1,500,000 for the Missouri State Crippled Children's Service during the same period.

President Ellis said these requests have been submitted to W. B. McGregor, assistant state budget director, along with appropriation requests for all of the other divisions of the University at Columbia and Rolla.

"The Medical Center appropriation requests," he said, "include $2,045,400 for the School of Medicine, $211,315 for the School of Nursing, $5,020,600 for the Hospital, and are in line with estimates made by the University before the Medical Center was built.

"Now that we have these new, long-planned medical facilities we are faced with realities," he continued. "Instead of estimates, we must present to the State Legislature requests for funds that actually will be needed. The amounts we have asked for will be required to educate physicians, nurses and other health workers, and, in addition, to provide medical care for a large number of citizens of Missouri who would not otherwise receive proper treatment.

"The Hospital, Medical Sciences Building and Residence Hall for Student Nurses are now in use by the reestablished four year Medical and Surgical School.

He pointed out that appropriations for the current biennium, 1955-57, were: School of Medicine, $1,800,000; School of Nursing, $105,000; and Hospitals, $2,100,000. He said that the 1955-57 appropriation for the Crippled Children's Service was $1,200,000.

President Ellis, in explaining the 1957-59 appropriation request of $2,045,400 for the School of Medicine, said that in June, 1957, the University will confer its first M.D. degrees since 1908. "During their third year of Medicine, in 1955-56," he said, "the students in this class received their clinical training in the old University hospitals, which accommodated about eighty patients. The beds, completely filled during most of the time, with a considerable waiting list besides, were occupied about 80 per cent by indigent patients from counties in the state. The School of Medicine moved into the new facilities during the latter part of September."

He said that in the fall of 1956 the number of students admitted to study for the M.D. degree was increased from forty-five to seventy-five, so that, beginning in 1960, the University will be graduating about seventy students each year with the M.D. degree.

"The clinical departments, such as Medicine, Surgery, Pediatrics, Obstetrics and Radiology, are established but not fully staffed," he said. "The Department of Psychiatry has not yet been developed. The funds requested for the biennium 1957-59, will, for the first time, indicate the approximate cost of an adequate staff for the four year School of Medicine so far as teaching undergraduate students preparing for the M.D. degree is concerned.

"This same staff, clinical and basic, will carry a large additional program of education of significance to the entire health program in the state. These will include graduate students in the basic medical sciences, postgraduate work for physicians and other health personnel, internship and residency training of an on-the-job character in the new hospital, technicians for various health agencies, students in the School of Nursing, and campus and adult education teaching on a large scale in the field of health and related topics.

"In addition, of course, a major share of the clinical faculty's time will be devoted to the care of patients in the University Hospital, and research on all phases of health and disease. While we have had to estimate carefully for this expansion, we firmly believe that the amount requested is the minimum that is needed for the 1957-59 biennium, the first in which we will carry a full load of a complete medical school."

President Ellis said that $211,315 will be needed by the School of Nursing in the forthcoming biennium to cope with the rapid growth of enrollment in that school. "The amount requested," he said, "will help the School of Nursing, which was restored six years ago, to relieve the critical shortage of nurses by enrolling seventy-five students each year. In the future we hope to increase the yearly enrollment to 100 students, or a total of 400 in all. In 1955-56, there were 168 nurses enrolled and the number is expected to increase to 220 in the year 1956-57. The growth here has been much faster than anticipated. This has placed a terrific burden on the School during the current year."

The appropriation request of $5,020,600 is needed for the Hospital, President Ellis said, to enable it to serve two major needs: 1. to enable the School of Medicine to train students; 2. to serve the health needs of the people of Missouri, who are not able to receive care in existing facilities.

He said that the estimated cost of operating an average of 240 beds at $30 a day for the year 1957-58 is $2,628,000 and that the estimate for operating an average of 330 beds at $28 a day during the year 1958-59 is $3,372,600, or a total inpatient expense of $6,000,600 for the biennium. He pointed out that the cost per day will continue to decline as the hospital reaches capacity. The outpatient department expense, he said, is estimated at $555,000. He said that this would make a total expense of $6,555,600 for the biennium and that, since the estimated income other than state appropriations is $1,535,000, the amount that would be needed from the State is $5,020,600.

"During the fiscal year 1955-56," President Ellis said, "operations were carried out in the old facilities and patients were referred by physicians from ninety-two counties in the State. Because of emergency cases, the local area ranked first in numbers but the fact that Pemiscot County ranked second in number of cases shows the statewide appeal and need. The outpatient department now approaches 60 patients a day and will increase steadily now that we have moved into our new buildings.

"There are two needs to be served by this new hospital," President Ellis said. "In the first place, the School of Medicine requires a sufficient number of cases in order to train its students.

"The second purpose is to serve the health needs of the people which are not taken care of by existing facilities. From this point of view, the people of the State may well wish to place the full hospital of 441 beds in operation as quickly as possible in order that citizens may be served. Also, the State may well prefer that as much of the hospital space as possible be used for indigent patients from all over the State who do not have adequate facilities and, in some cases, no facilities at all to take care of them. We are requesting funds to allow the hospital to care for, by the end of the biennium, inpatient and outpatient clinical services for several hundred patients per day."

President Ellis said that the Crippled Children's Service offers complete medical and surgical care to indigent children under the age of 21 who have remediable orthopedic and plastic conditions. He said that the University of Missouri, which administers the Crippled Children's Service with centers located in St. Joseph, Kansas City, Springfield, Columbia, St. Louis and Cape Girardeau, will need an appropriation of $1,500,000 for this service during the forthcoming biennium.

"There are at present," he said, "approximately 18,000 children on the registry of the Missouri State Crippled Children's Service. During recent months, there has been a 50 per cent increase in the number of children referred to the Service and several hundred children are currently awaiting admission to the treatment centers for surgical procedures. Additional funds are requested for the next biennium in order that the Crippled Children's Service may render care to additional handicapped children, since both the number of crippled children and the total child population of Missouri have increased sharply in recent years."

Woman's Auxiliary

(Continued from page 1050)

iary's own *Quarterly Bulletin* which members receive.

One of my most rewarding experiences was an invitation to address an organization of medical student's wives of St. Louis University, which call themselves "The Dames." They were most anxious to learn of the work of medical auxiliaries all over the nation, anxious to prepare themselves to take their place in our work when the time comes and were particularly interested in the study of Health Legislation. I truly salute these fine young women and think the future of the Auxiliary looks bright.

Best wishes for a Merry Christmas.

DEATHS

Hanks, Ralf, M.D., Fulton, a graduate of St. Louis University School of Medicine, 1926; member of the Callaway County Medical Society; aged 61; died September 22.

Mathae, George W., M.D., St. Louis, a graduate of St. Louis University School of Medicine, 1909; honor member of the St. Louis Medical Society; aged 75; died September 22.

Cannady, Julius E., M.D., Sedalia, a graduate of Vanderbilt University School of Medicine, 1901; honor member of the Pettis County Medical Society; aged 81; died September 28.

Bunch, James R., M.D., Nevada, a graduate of the National University of Arts and Sciences, 1916; member of the West Central Missouri Medical Society; aged 68; died September 29.

Spencer, Floyd H., M.D., St. Joseph, a graduate of Central Medical College, 1900; honor member of Buchanan County Medical Society; aged 77; died October 4.

Quisito, Joseph M., M.D., Trenton, a graduate of the Kansas City University of Physicians and Surgeons, 1932; member of the Grand River Medical Society; aged 51; died October 4.

Fisher, Arthur O., M.D., St. Louis, a graduate of the Johns Hopkins School of Medicine, 1909; honor member of the St. Louis Medical Society; aged 72; died October 23.

Piekarski, Anthony A., M.D., St. Louis, a graduate of St. Louis University School of Medicine, 1924; member of the St. Louis Medical Society; aged 57; died October 26.

Britt, Robert E., M.D., St. Louis, a graduate of Creighton University School of Medicine, 1929; member of the St. Louis Medical Society; aged 52; died October 28.

Martin, Samuel P., M.D., East Prairie, a graduate of Washington University School of Medicine, 1906; honor member of the Semo County Medical Society; aged 79; died October 28.

Cline, Jesse A., M.D., Oran, a graduate of Kentucky University School of Medicine, 1904; member of the Semo County Medical Society; aged 75; died October 29.

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roll over on it."

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I was getting
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for high heels–
low heels
didn't help.
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down to
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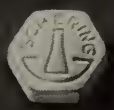

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TUBERCULOSIS ABSTRACT

A NOTE ON THE ASSOCIATION OF EMPHYSEMA, PEPTIC ULCER AND SMOKING

This discussion suggests a relation between emphysema, peptic ulcer and smoking and tentatively places a heavy responsibility on the last in the pathogenesis of the first two. In the course of the last eighteen months, twenty-five patients with chronic obstructive pulmonary emphysema were studied. These patients were unselected and came under observation only because of advanced pulmonary disability. A review of the histories in this group revealed that all had been heavy smokers and, with the exception of one male patient who stated that he smoked cigars exclusively, all had smoked cigarettes for twenty years or more. Some had stopped smoking when respiratory symptoms developed. A history of smoking has been consistently found in patients with cough syncope, a not unusual concomitant of pulmonary emphysema.

The group comprised nineteen men and six women, ranging in age from 51 to 81 years. All complained of dyspnea of three or more years' standing, and, except for three male patients with cardiac disease apparently secondary to their pulmonary lesion, none had any recognizable cause for their respiratory symptoms other than the presence of obstructive change in the airway. All had some reduction in the vital capacity and marked slowing of expiration as demonstrated by the expirogram, less than 50 per cent of the vital capacity being exhaled in the first second. The residual volume was 50 per cent or more of the total capacity in all eleven patients, in whom this measurement was made. Three patients, all males, in this group had bronchogenic carcinoma. Eighteen patients were treated intensively with steroids, and although symptomatic improvement was clearly induced in sixteen, none had more than slight or, at best moderate improvement in lung function as judged by the expirogram or by more elaborate tests of pulmonary function.

Unfortunately, the criteria by which emphysema, as the term is used here is to be distinguished from bronchial asthma, have never been clearly established. The distinction can be made. Asthma usually begins early in life, but irrespective of the age at onset, periods of severe dyspnea—associated with a reduction in maximal expiratory rate—tend to alternate with periods of normal or close to normal exercise tolerance and pulmonary function can be restored with intensive steroid therapy. In the progressive and often ultimately fatal form of obstructive pulmonary disease referred to here as emphysema, there is usually no dyspnea or other evidence of functional imparment of the lung before the age of 40, there is a gradual loss of pulmonary reserve and once respiratory symptoms have become manifest, there are no complete remissions. Finally, the maximal expiratory rate is markedly reduced, an abnormality that can be at best only partially removed by intensive treatment with bronchodilator drugs or steroids or both. All patients in the group of twenty-five fulfilled these criteria.

Certain features of emphysema can be explained by the assumption that the disease is an inflammatory lesion of the bronchial tree caused by the inhalation of minute irritating particles. The emphysematous pa-

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Issued by the National Tuberculosis Association.
By Francis C. Lowell, M.D., William Franklin, M.D., Alan L. Michelson, M.D., and Irving W. Schiller, M.D., *The New England Journal of Medicine*, January 19, 1956.

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tient with dyspnea and obvious obstruction to expiration often has a remarkably silent chest on auscultation. In contrast, the asthmatic patient with dyspnea usually wheezes audibly. In asthma, obstruction may be chiefly in the relatively large noise producing airways, whereas in emphysema this may be restricted to the terminal portion of the airway. Here, the small caliber of the airway and the low velocity of flow minimize turbulence, the cause of wheezes and rhonchi. Such a distribution of the lesion in the two conditions might arise from a difference in the size of the particles inhaled, those recognized as causes of asthma (pollens, mold spores and dusts) being relatively large and tending therefore to settle out in the larger airways, and those that we believe to cause emphysema (smoke and possible fumes and certain industrial dusts presumably acting as irritants) being minute and therefore capable of reaching the periphery of the lung.

We were further struck by the occurrence of peptic ulcer in six of the twenty-five patients with emphysema, a prevalence of 24 per cent. That this was not mere chance is suggested by other published reports emphasizing such a relation.

An association appears to exist, therefore, between cigarette smoking and emphysema on the one hand and emphysema and peptic ulcer on the other. We believe that the presence of cigarette smoking in this association is best explained as a cause in emphysema and an aggravating circumstance and possibly a cause in ulcer. Such an assumption explains the following: the finding that all of a group of twenty-five patients with emphysema were cigarette smokers of long standing; the reported description of the lesion in emphysema as inflammation and obstruction of the peripheral and narrow portion of the airway; the widely held opinion that smoking aggravates peptic ulcer; the frequency of peptic ulcer in patients with emphysema; and the occurrence, in the group of twenty-five patients with emphysema, of three cases of bronchogenic carcinoma, a disease for which an association with cigarette smoking appears to have been established.

The quality and manner of smoking (inhalation) or both may be influenced significantly by the personality of the subject, which is here regarded as having a direct bearing, therefore, on the development of both emphysema and peptic ulcer. A simple schema representing the interrelations herein postulated is as follows: "Tension" is loosely used here to represent a constellation of emotional states and habits ordinarily attributed to those who are anxious, frustrated, ambitious and so forth and who, perhaps because of added factors may be led or pushed to smoke. Relations other than those indicated may also exist—for example, anxiety produced by respiratory difficulty causing or aggravating ulcer.

It is therefore suggested that emphysema and perhaps peptic ulcer as well should be assigned a place along with carcinoma of the lung in the tobacco controversy. Intensive study of this question appears to be warranted since emphysema as defined is a disease more common than carcinoma of the lung and has a prognosis almost as gloomy.

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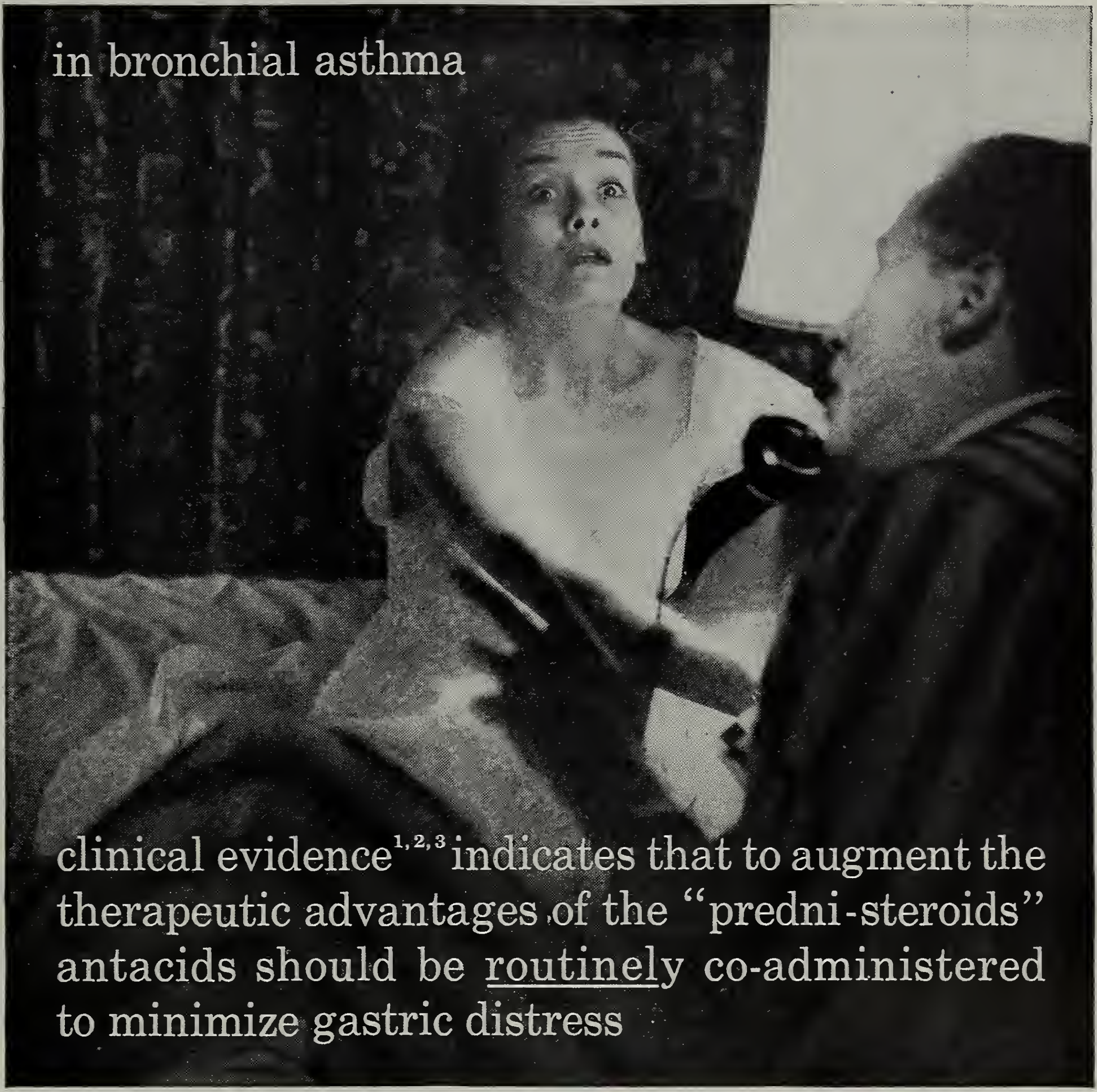
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References: 1. Boland, E. W., *J.A.M.A.* 160:613, (February 25,) 1956. 2. Margolis, H. M. *et al*, *J.A.M.A.* 158:454, (June 11,) 1955. 3. Bollet, A. J. *et al*, *J.A.M.A.* 158:459, (June 11,) 1955.

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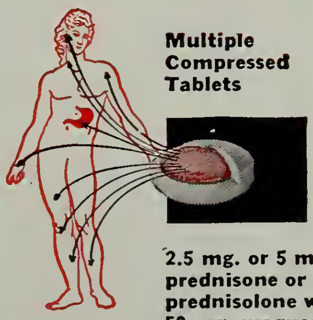

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1. Herrell, W. E., Erythromycin, Antibiotics Monographs, No. 1, p. 29, New York, Medical Encyclopedia, Inc., 1955. *Idem* p. 30.

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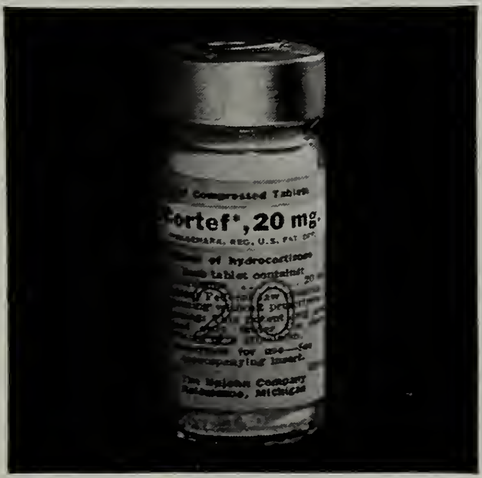
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